SHOUT
SHARE
IT

FOR THE PEOPLE
FOR EDVCATION
FOR SCIENCE

LIBRARY
OF
THE AMERICAN MUSEUM
OF
NATURAL HISTORY

THE IBIS,

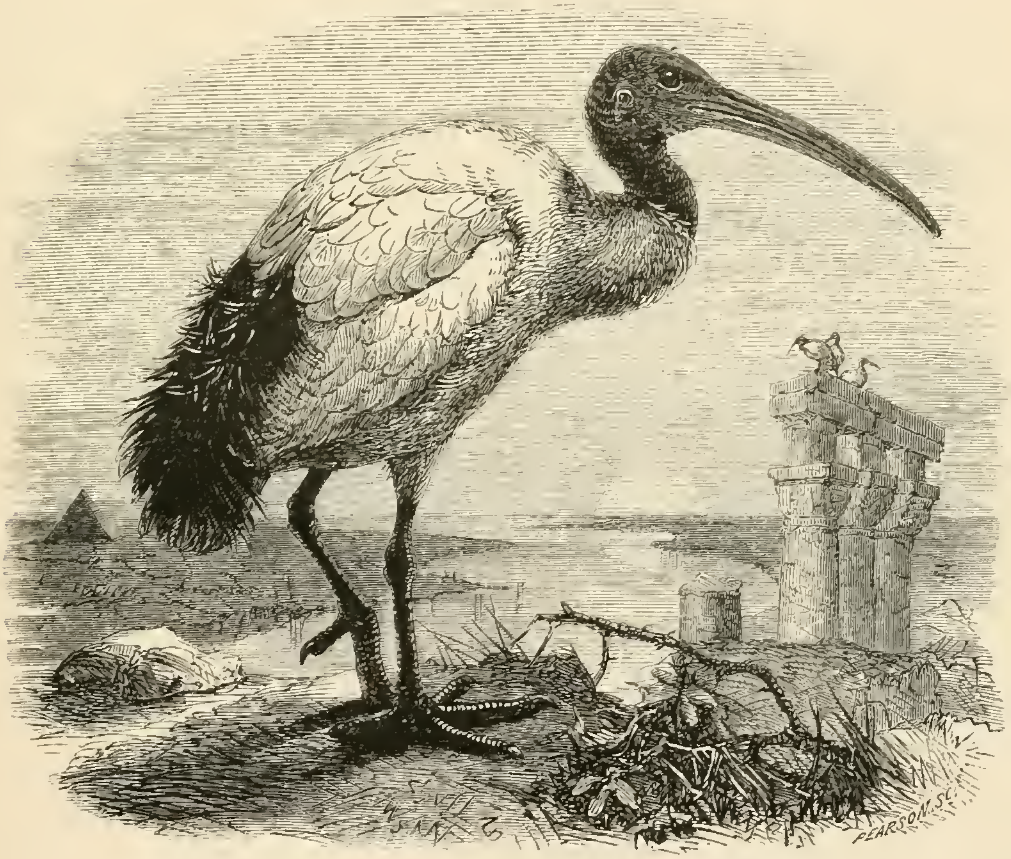
A MAGAZINE OF GENERAL ORNITHOLOGY.

EDITED BY

PHILIP LUTLEY SCLATER, M.A., Ph.D., F.R.S.,

FELLOW OF CORPUS CHRISTI COLLEGE, OXFORD;
SECRETARY TO THE ZOOLOGICAL SOCIETY OF LONDON;
FELLOW OF THE LINNEAN SOCIETY; HONORARY MEMBER OF THE ACADEMY OF NATURAL
SCIENCES OF PHILADELPHIA, OF THE LYCEUM OF NATURAL HISTORY OF NEW YORK,
AND OF THE GERMAN ORNITHOLOGISTS' SOCIETY; ETC.

VOL. IV. 1862.



"Ibimus indomiti venerantes Ibida sacram,
Ibimus incolumes qua prior Ibis adest."

LONDON:
N. TRÜBNER AND CO., PATERNOSTER ROW.

Paris.
Fr. Klincksieck,
11, Rue de Lille.

Leipzig.
F. A. Brockhaus.

New York.
B. Westermann & Co.,
440, Broadway.

1862.

PRINTED BY TAYLOR AND FRANCIS, RED LION COURT, FLEET STREET.

PREFACE.

Once more it becomes the agreeable duty of the proprietors of 'The Ibis' to return their grateful thanks for the hearty cooperation accorded them by the Ornithologists of all parts of the world.

It is fully believed that the contents of the present volume will not be found inferior in interest or utility to those of its predecessors, while, from the assurances of support received by the Editor, he entertains a strong conviction that the present high standard will be kept up in future years.

PHILIP LUTLEY SCLATER
(*Editor*).

11, Hanover Square,
Oct. 1st, 1862.

LIST OF MEMBERS

OF THE

BRITISH ORNITHOLOGISTS' UNION.

1862.

Robert Birkbeck, F.Z.S.; 65 Lombard Street, London.

Henry Maurice Drummond-Hay, Lieutenant-Colonel, Royal Perth Rifles; Seggieden, Perthshire.

Thomas Campbell Eyton, F.L.S., F.Z.S., F.G.S., &c.; Eyton Hall, Salop.

Frederick DuCane Godman, F.Z.S.; 55 Lowndes Square, London.

Percy Sandon Godman, B.A., Corr. M.Z.S.; Borregaard, Sarpsborg, Norway.

John Henry Gurney, M.P., F.Z.S., &c.; Catton Hall, Norfolk.

Rev. William Henry Hawker, M.A., F.Z.S.; Green Hook, Horndean, Hants.

Arthur Edward Knox, M.A., F.L.S.; Trotton, Sussex.

Right Hon. Thomas Lyttleton, Lord Lilford, F.Z.S.; Lilford Hall, Northants.

Edward Clough Newcombe; Feltwell Hall, Norfolk.

Alfred Newton, M.A., F.L.S., F.Z.S., &c.; Fellow of Magdalen College, Cambridge.

Edward Newton, M.A., Corr. M.Z.S., Assistant Colonial Secretary, Mauritius.

John William Powlett-Orde, late Captain 42nd (Royal Highland) Regiment; Kilmorey, Argyllshire.

Osbert Salvin, M.A., F.Z.S.; 11 Hanover Terrace, Regent's Park, London.

Philip Lutley Sclater, M.A., Ph.D., F.R.S., Sec. Z.S., &c., Fellow of Corpus Christi College, Oxford; 11 Hanover Square, London.

Alfred Forbes Sealy, M.A., F.C.P.S., &c.; Madras.

Wilfred Huddleston Simpson, M.A., F.Z.S.; 21 Gloucester Place, Portman Square, London.

Rev. Edward Cavendish Taylor, M.A., F.Z.S.; Oxford and Cambridge Club, Pall Mall, London.

Robert Fisher Tomes, Corr. M.Z.S.; Welford Hill, Stratford-upon-Avon, Warwickshire.

Rev. Henry Baker Tristram, M.A., F.L.S., Corr. M.Z.S., Master of Greatham Hospital, Durham.

HONORARY MEMBERS

OF THE

BRITISH ORNITHOLOGISTS' UNION.

Professor SPENCER F. BAIRD, Assistant Secretary to the Smithsonian Institution, *Washington.*

Doctor EDUARD BALDAMUS, Pfarrer zu *Osternienburg bei Cöthen,* Sekretär der deutschen Ornithologen-Gesellschaft.

EDWARD BLYTH, Curator to the Museum of the Royal Asiatic Society of Bengal, *Calcutta.*

Doctor JEAN CABANIS, Erster Custos am Königl. Museum der Friedrich-Wilhelm's Universität zu *Berlin.*

JOHN CASSIN, Academy of Natural Sciences, *Philadelphia.*

Doctor GUSTAV HARTLAUB, *Bremen.*

LEOPOLD EDGAR LAYARD, South African Museum, *Capetown.*

Professor J. REINHARDT, Kongelige Naturhistoriske Museum, i *Kjöbenhavn.*

JULES VERREAUX, Rue St. Louis au Marais, no. 17, à *Paris.*

ALFRED RUSSEL WALLACE, 5 Westbourne Grove Terrace, London, W.

CONTENTS OF VOL. IV. (1862.)

NUMBER XIII., *January*.

Page

I. Additional Notes on the American Barbets. By PHILIP LUTLEY SCLATER. (Plate I.) 1

II. On Birds collected and observed in the Interior of British North America. By Capt. BLAKISTON, R.A. (Part II.) . . 3

III. Descriptions of Six New Species of Birds from the Isthmus of Panama. By GEORGE N. LAWRENCE, C.M.Z.S. . . 10

IV. Remarks on the Mode of preparing and keeping living Thrushes and other Birds intended for Shipment to Australia. By A. D. BARTLETT 13

V. Notice of some New Species of Birds from Upper Burmah. By Surgeon-Major T. C. JERDON 19

VI. Note on *Falco circumcinctus*, a rare Bird of Prey from South America. By PHILIP LUTLEY SCLATER. (Plate II.) . . 23

VII. An additional List of Birds received from Natal. By JOHN HENRY GURNEY, M.P., F.Z.S. (Plate III.) 25

VIII. Notice on the occurrence of the Red-necked Goatsucker (*Caprimulgus ruficollis*) in England. By JOHN HANCOCK . . 39

IX. Review of Drs. BLASIUS's and BALDAMUS's Continuation of Naumann's 'Vögel Deutschlands' 40

X. An Ornithological Letter on Heligoland. By Prof. Dr. J. H. BLASIUS 58

Page

XI. Recent Ornithological Publications:—

1. *English Publications*:—Gould's 'Humming-birds:' Swinhoe's 'North-China Campaign:' Collingwood's 'Notes on Singing-birds:' Newman's 'Birds'-nesting:' Lubbock's article on the Kitchen-middens of Denmark: Blyth's Reports on accessions to the Calcutta Museum: Parker's 'Osteology of *Balæniceps rex*' 72

2. *French Publications*:—Revue et Magasin de Zoologie . . 79

3. *German Publications*:—v. Heuglin's articles on the Fauna of the Red Sea: v. Pelzeln's new Accipitres: Report of the German Ornithological Society's Meeting at Stuttgardt: Cabanis's Journal für Ornithologie 79

4. *American Publications*:—Coues's Monograph of the *Tringeæ* of N. America; and Notes on the Ornithology of Labrador: Elliot's Monograph of the *Pittas*: Wheaton's Catalogue of the Birds of Ohio: The Canadian Naturalist and Geologist . . . 84

XII. Letters, Extracts from Correspondence, Notices, &c.:—

Letters from Mr. G. D. Rowley and Mr. H. Stevenson: Extract of a Letter from Dr. G. Bennett: Announcement of Mr. Jerdon's work on the Natural History of India: Mr. Blyth's Letters and critical Remarks: The latest news of Mr. Monteiro in Benguela, Mr. Edward Newton in Madagascar, Mr. Wallace in the Indian Archipelago, and Messrs. Salvin and Godman in Guatemala 88

NUMBER XIV., *April*.

XIII. Notes on the Sea-birds observed during a Voyage in the Antarctic Ocean. By E. L. LAYARD, Corr. Memb. Z.S. . 97

XIV. Observations on the Birds of the Western Districts of the Province of Nelson, New Zealand. By JULIUS HAAST . . 100

XV. On the supposed Gular Pouch of the Male Bustard (*Otis tarda*). By ALFRED NEWTON, M.A., F.L.S. 107

XVI. Five Weeks in the Peninsula of Florida during the Spring of 1861, with Notes on the Birds observed there. By GEORGE CAVENDISH TAYLOR, F.R.G.S., F.Z.S., &c. (Part I.) . 127

Page

XVII. On some new or little-known Birds from the Cape Colony. By Dr. G. Hartlaub 143

XVIII. A Fourth additional List of Birds received from Natal. By John Henry Gurney, M.P., F.Z.S.. (Plates IV. & V.) 149

XIX. Some Remarks on the Genus *Balæniceps*. By Dr. J. Reinhardt 158

XX. Note on *Pipra deliciosa*. By Philip Lutley Sclater. (Plate VI.) 175

XXI. Recent Ornithological Publications:—

1. *English Publications*:—Ravenstein's 'Russians on the Amoor:' Boner's 'Forest Creatures:' Lubbock on the Lake-habitations of Ancient Switzerland: Bree's 'Birds of Europe' . 178

2. *Russian and Scandinavian Publications*:—Schatiloff's 'Birds of Tauria:' Reinhardt on the *Balæniceps*: Sundevall's 'Svenska Foglarna:' Meves on the Ornithology of Jemtland, and the Red-colouring of the Lämmergeyer 181

3. *American Publications*:—Proceedings of the Boston Society of Natural History: Bryant on the genus *Catarractes*, and on *Buteo borealis*: Elliot on a new *Pitta*: Suckley on a new American Grouse: Cooper on new Californian Birds: Geoffrey's 'Humming-birds of Bogota' 183

XXII. Letters, Extracts from Correspondence, Notices, &c.:—Letters from Messrs. H. Stevenson and G. Krefft: Extracts of Letters from Dr. G. Bennett, Mr. Blyth, and Herr A. v. Pelzeln: Remarks on *Podiceps auritus* breeding in Egypt: Latest intelligence of Messrs. Salvin and Godman, of Mr. E. Newton, and of Mr. F. Plant 189

Number XV., *July*.

XXIII. Five Weeks in the Peninsula of Florida during the Spring of 1861, with Notes on the Birds observed there. By George Cavendish Taylor, F.R.G.S., F.Z.S., &c. (Part II.) 197

Page

XXIV. Further note on the Eggs of *Vultur auricularis* and *Aquila audax*. By J. H. Gurney, M.P., F.Z.S. 207

XXV. Observations sur le Genre *Circaëtus*; et Description d'une nouvelle Espèce. Par MM. J. Verreaux et O. DesMurs. (Plate VII.) 208

XXVI. A List of the Birds of New Zealand and the adjacent Islands 214

XXVII. Ornithological Ramble in Foochow, in December 1861. By R. Swinhoe, Corr. Mem. Zool. Soc. Lond. . . . 253

XXVIII. Notes on Birds observed in Madagascar. By S. Roch, Assistant-Surgeon, R.A., C.M.Z.S., and Edward Newton, M.A., C.M.Z.S. (Part I.) (Plates VIII. & IX.) 265

XXIX. Notice of the supposed occurrence of the American Kill-deer Plover in this country. By P. L. Sclater . . . 275

XXX. Note on the Birds of Palestine. By the Rev. H. B. Tristram 277

XXXI. Ornithology in the International Exhibition . . . 279

XXXII. Recent Ornithological Publications:—

1. *English Publications*:—Mrs. Hugh Blackburn's 'Birds Drawn from Nature' 290

2. *German Publications*:—Bädeker's 'Eier der Europaischen Vögel:' Fritsch's 'Naturgeschichte der Vögel Europa's:' Preyer und Zirkel's 'Reise nach Island' 294

XXXIII. Letters, Extracts from Correspondence, Notices, &c.:—

Letters from Mr. W. K. Parker, M. Léon Olph-Galliard, and Mr. H. Stevenson: Extracts of letters from Mr. Blyth and Mr. Swinhoe: News of Mr. Kennicott in North America . . 297

Number XVI., *October*.

Page

XXXIV. On the Ornithology of Northern Japan. By Captain Blakiston. (Plate X.) 309

XXXV. Notes on Birds collected in Angola in 1861. By Joachim J. Monteiro. (Plate XI.) 333

XXXVI. Description d'une nouvelle Espèce de Pigeon du Genre *Leucotreron*. Par MM. Jules Verreaux et O. DesMurs. (Plate XII.) 342

XXXVII. Sur l'*Anthus* des Canaries reconnu comme espèce nouvelle et nommé *Anthus berthelotii*. Par Charles Bolle (de Berlin) 343

XXXVIII. On some new Birds from the Northern Moluccas. By A. R. Wallace 348

XXXIX. On the Extinction in Europe of the Common Francolin (*Francolinus vulgaris*, Steph.). By Lord Lilford, F.L.S, F.Z.S. 352

XL. Notes on the Birds of Egypt. By S. Stafford Allen . 357

XLI. Remarks on the Lesser Buzzard of South Africa and its Congeners. By J. H. Gurney, M.P., F.Z.S. 361

XLII. Letter from Mr. Swinhoe. (Plate XIII.) . . . 363

XLIII. Contribution to the Breeding History of the Nutcracker (*Nucifraga caryocatactes*). By E. Schütt 365

XLIV. Review of the recently published Memoir of Bewick 368

XLV. Recent Ornithological Publications:—

1. *English Publications*:—Morris's 'British Birds:' Johns's 'British Birds in their Haunts:' Bree's 'Birds of Europe:' Sclater's 'Catalogue of American Birds:' Mason's 'Burmah.' . 378
2. *French Publications*:—Revue et Magasin de Zoologie . . 380
3. *German Publications*:—Journal für Ornithologie: Bädeker's 'European Eggs' 381
4. *Scandinavian and Russian Publications*:—Kroyer's 'Tidsskrift:' Radde's 'Travels in Eastern Asia' 382
5. *American Publications*:—Elliot's 'Pittas' 383

Page

XLVI. Letters, Extracts from Correspondence, Notices, &c.:—
Letters from Freiherr v. Heuglin and Mr. Rowley: Extracts of letters from Mr. Blyth and Mr. Gätke: Mr. Crewe's notes on the Dotterel in Bucks: Death of M. Mouhot: Mr. Gould's new work on 'British Birds:' Major Tytler's appointment to the Andamans 383

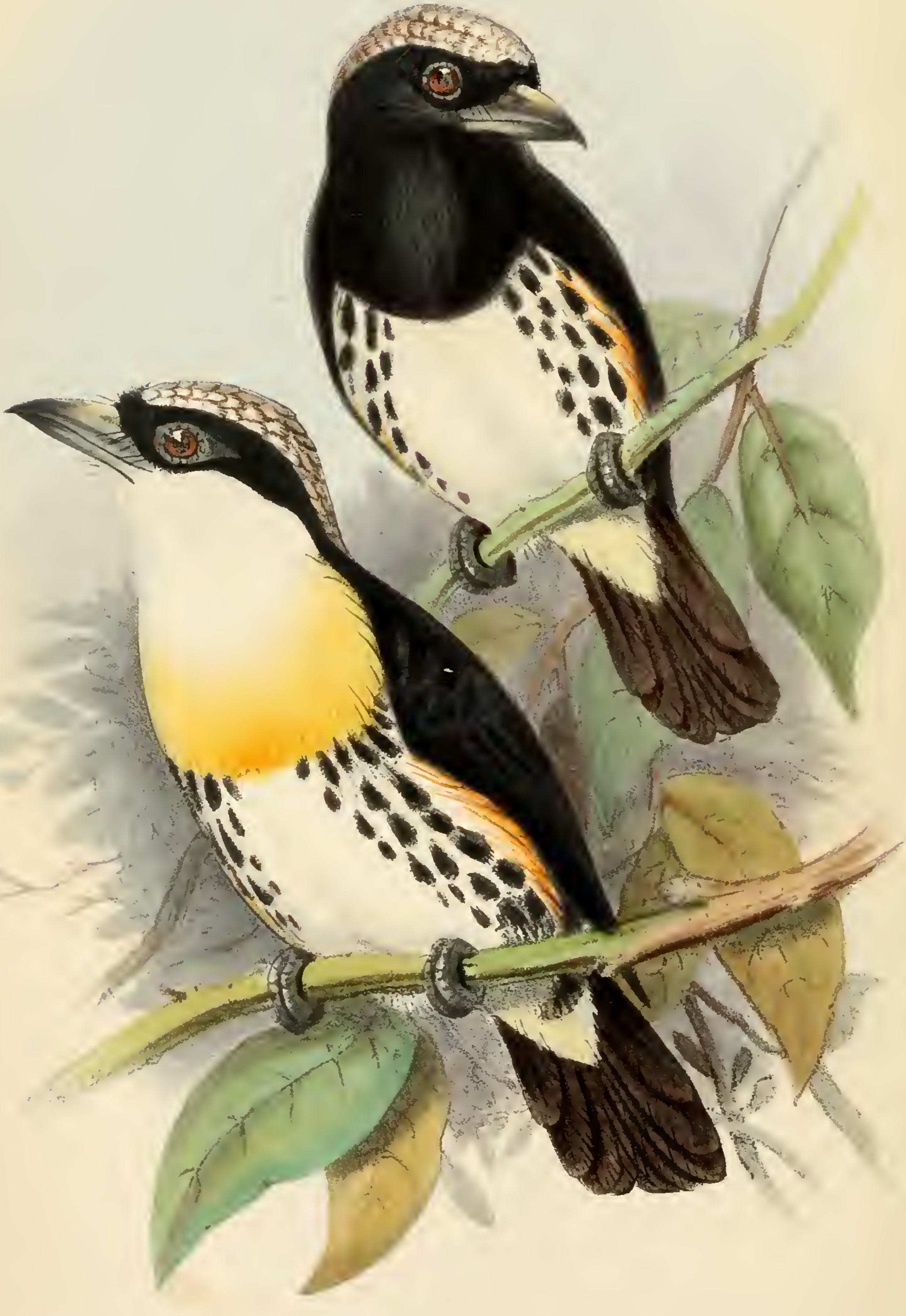
Index 393

ERRATA.

Page 19, line 15, for "Chatachee" read "*Chatarrhœa.*"
Page 91, line 16, for "*cyanura*" read "*cyanea.*"
Page 151, foot-note, for *a* read *b*, and for *b* read *a*.
Page 162, line 12, for "*hyperrhachis*" read "*hyporhachis.*"
Page 162, line 28, and elsewhere in the same article, *for* "rows of feathers" *read* "featherless interspaces."
Page 163, lines 23, 24, *for* "though with them" *read* "and where."
Page 168, line 30, *for* "surfaces of the" *read* "surfaces for the."
Page 180, line 3, *for* "Trogon" *read* "Troyon."
Page 281, line 26, *for* "forms" *read* "hues."
Page 308, line 16, *for* "Beer" *read* "Bear."

PLATES IN VOL. IV.

		Page
I.	Capito maculicoronatus	1
II.	Falco circumcinctus	23
III.	Circaëtus fasciolatus	25
IV.	Spizaëtus ayresii	149
V.	Pindalus ruficapillus	149
VI.	Machæropterus deliciosus	175
VII.	Circaëtus beaudouini	208
VIII.	Buteo brachypterus	265
IX.	Atelornis pittoides	265
X.	Turdus naumanni	319
XI.	Hirundo monteiri	340
XII.	Leucotreron gironieri	342
XIII.	Psaropholus ardens	363



[illegible] lith.   [illegible] Hanhart imp.

[illegible] TORQUATUS

THE IBIS.

No. XIII. JANUARY 1862.

I.—*Additional Notes on the American Barbets.*

By Philip Lutley Sclater.

(Plate I.)

In an article on the Barbets of America (*Capitonidæ*), published in this Journal last year*, I gave descriptions of all the species of the family then known to me, amounting to thirteen in number. Since that paper was written, Mr. George N. Lawrence, of New York, has, as has been already mentioned in these pages ('Ibis,' 1861, p. 406), made known a new and brilliant addition to the group, by the name of *Capito maculicoronatus*, and this, moreover, from a region hitherto supposed to be outside of the area occupied by this peculiar form. I have now to acknowledge Mr. Lawrence's kindness in sending me for examination specimens of this bird; and the subscribers to the 'Ibis' are indebted to his liberality for the accompanying coloured plate, in which both the sexes are represented.

The *Capito maculicoronatus* is very distinct specifically from any of the species included in my previous list. In form it is most nearly allied to the more typical members of the genus, and should be placed near *Capito erythrocephalus* and *C. peruvianus*, as they stand in my arrangement, with the following short characters.

Capito maculicoronatus. (Pl. I.)

Capito maculicoronatus, Lawr. Ann. Lyc. of N. H. New York, vol. vii. p. 300.

---

* See Ibis, 1861, p. 182.

♂ Niger: pileo flavescenti-brunneo maculato: subtus pallide limonaceo-albus, pectore aurantiaco suffuso, lateribus nigro maculatis: plaga elongata utrinque in hypochondriis aurantiaca: rostro obscure corneo, macula ante nares aurantiaca; mandibulæ inferioris basi albicante: pedibus nigris: long. tota 6·3, alæ 3·2, caudæ 2·2 poll. Angl. et dec.

♀ Mari similis, sed gutture toto et pectore nigerrimis.

Hab. in isthmo Panama.

Mus. Geo. N. Lawrence.

I confess I should rather have supposed the black-throated bird of this singular pair (represented in the upper figure in Pl. I.) to be the male; but Mr. Lawrence, in answer to inquiries on this point, assures me that his description of the sexes (which I have here followed) is correct. Mr. Lawrence says, in a letter dated "New York, August 14th, 1861":—

"Since my description of this species, I have received from Messrs. J. McLeannan and J. R. Galbraith a fine collection of birds, made for me during the past winter on the Isthmus of Panama, with such observations as they were able to make. One male and two females were the only specimens that were procured of this species, and the following short note the only information that is given of it:—

"'Irides brown. Not often met with. Found on high trees. Length 7 inches.'"

Mr. Lawrence adds (Nov. 7th):—"The sexes of the *Capito* are, without doubt, correctly given. I have seen Mr. Galbraith in reference to this point. He states that his determination of the sexes was made in all cases by dissection; that he particularly remembers this species, and is positive as to his specimens being correctly marked."

I may add to my remarks on *Tetragonops ramphastinus* ('Ibis,' 1861, p. 184, pl. vi.), that the British Museum now contains an example of this singular bird, lately received from Ecuador through Mr. Gould. In this specimen the nuchal feathers are rather elongated, and form a sort of tuft, which I have not noticed in the two examples in Sir William Jardine's collection.

II.—*On Birds collected and observed in the Interior of British North America.* By Capt. Blakiston, R.A.* (Part II.)

[Concluded from vol. iii. p. 320.]

Order II. SCANSORES.

19. Picus villosus. No. 27. Forks of Saskatchewan River, Dec. 1857. Length $9\frac{7}{8}$ in., wing $5\frac{1}{4}$. Sex not known.
No. 37. Forks of Saskatchewan, Jan. 22nd, 1858.

20. Picus pubescens. No. 42 ♂. Forks of Saskatchewan, Feb. 4th, 1858. Length $6\frac{1}{2}$ in., wing 4. Eye red.

21. Sphyrapicus varius. No. 10 ♂. Grand Rapids of Saskatchewan, Sept. 25th, 1857. No. 85 ♂. Forks of Saskatchewan, May 7th, 1858.

22. Hylatomus pileatus. No. 63. North branch of Saskatchewan River, April 1858.

23. Melanerpes torquatus. No. 163 ♂. Bow River, lat. 51° north, Sept. 19th, 1858.

24. Colaptes auratus. No. 176. Hudson's Bay. Eggs also obtained.

25. Colaptes mexicanus. Obtained by M. Bourgeau.

Order III. INSESSORES.

26. Chordeiles henryi. No. 132 ♂. Forks of Saskatchewan, June 2nd, 1858. Specimens obtained by M. Bourgeau, and eggs on the Saskatchewan Plains, summer 1858.

27. Ceryle alcyon. No. 157. Rocky Mountains, 49° north, Sept. 1858.

28. Tyrannus carolinensis. No. 131 ♂. Forks of Saskatchewan, June 1st, 1858. Specimen and eggs obtained by M. Bourgeau, Plains of Saskatchewan, summer 1858.

---

* Owing to Capt. Blakiston's hurried departure for China last year, he was, unfortunately, unable to complete his notes, except so far as they related to the *Acciptres*, which were given in the former part of his paper. —Ed.

29. Sayornis sayus. No. 79. Plains of Saskatchewan, May 4th, 1858.

30. Empidonax pusillus. No. 122 ♂. Forks of Saskatchewan, May 27th, 1858.

31. Turdus swainsonii. No. 99. Forks of Saskatchewan, May 19th, 1858.

32. Turdus migratorius. No. 75 ♂. Forks of Saskatchewan, April 24th, 1858. Eggs also obtained.

33. Anthus ludovicianus. No. 104 ♀. Forks of Saskatchewan, May 18th, 1858.

No. 159 ♂. Base of Rocky Mountains, 49° north, Sept. 9th, 1858.

34. Neocorys spraguii. No. 82 ♂. Forks of Saskatchewan, May 7th, 1858.

Common on the Plains of Saskatchewan.

35. Helminthophaga celata. No. 110 ♂. Forks of Saskatchewan, May 21st, 1858.

36. Helminthophaga peregrina. Nos. 124 ♀, 125 ♂. Lower Saskatchewan, May 27th, 1858.

37. Seiurus noveboracensis. No. 115 ♀. Forks of Saskatchewan, May 22nd, 1858.

38. Dendroica striata. No. 98 ♂. Forks of Saskatchewan, May 15th, 1858.

39. Dendroica æstiva. No. 120 ♂. Forks of Saskatchewan, May 26th, 1858.

40. Setophaga ruticilla. No. 127 ♂. Forks of Saskatchewan, May 27th, 1858.

41. Hirundo bicolor. No. 102 ♂. Forks of Saskatchewan, May 17th, 1858.

42. Cotyle riparia. Specimen and eggs obtained by M. Bourgeau, Saskatchewan Plains, summer 1858.

43. Progne purpurea. No. 94. Forks of Saskatchewan, May 11th, 1858.

44. Collyrio borealis. No. 8. Between Hudson's Bay and Lake Winipeg, Sept. 17th, 1857.

No. 26 ♂. Forks of Saskatchewan, Dec. 18th, 1857.

45. Collyrio excubitoroides. No. 138 ♀. Forks of Saskatchewan, June 2nd, 1858.

46. Vireo olivaceus. No. 146 ♀. Forks of Saskatchewan, June 4th, 1858.

47. Vireo gilvus. No. 123 ♂. Forks of Saskatchewan, May 27th, 1858.

48. Mimus carolinensis. No. 137. Forks of Saskatchewan, June 3rd, 1858. Specimen and eggs obtained by M. Bourgeau, in the Saskatchewan Plains, summer 1858.

49. Harporhynchus rufus. No. 141 ♂. Forks of Saskatchewan, June 4th, 1858.

50. Cistothorus palustris. No. 80 ♂. Plains of Saskatchewan, May 4th, 1858.

51. Troglodytes parkmanni. No. 121 ♂. Forks of Saskatchewan, May 27th, 1858. Specimen and eggs obtained by M. Bourgeau.

52. Sitta canadensis. No. 11 ♂. Lower Saskatchewan, Sept. 26th, 1857.

53. Parus septentrionalis. No. 28 ♂. Forks of Saskatchewan.

No. 43. Forks of Saskatchewan, Feb. 8th, 1858.

Nos. 44 ♂, 45 ♂. Forks of Saskatchewan, Feb. 18th, 1858.

No. 150 ♂. East base of Rocky Mountains, Aug. 14th, 1858.

54. Parus hudsonicus. Seen and examined between Hudson's Bay and Lake Winipeg.

55. Eremophila cornuta. No. 103 ♂. Forks of Saskatchewan, May 17th, 1858.

56. Hesperiphona vespertina. No. 22. Forks of Saskatchewan, Nov. 15th, 1857.

No. 23 ♂. Forks of Saskatchewan, Nov. 17th, 1857.

No. 33 ♂. „ „ „ Dec. 10th, 1857.

No. 40 ♂. Forks of Saskatchewan, Jan. 21st, 1858.
No. 41 ♀. „ „ „ Jan. 21st, 1858.

57. Pinicola canadensis. No. 20 ♂. Forks of Saskatchewan, Nov. 10th, 1859.
No. 34. Forks of Saskatchewan, Dec. 1857.
No. 47. „ „ „ Dec. 1857.
No. 48 ♂. „ „ „ Dec. 30th, 1857.

58. Carpodacus purpureus. No. 84 ♂. Forks of Saskatchewan, May 7th, 1858.

59. Chrysomitris pinus. No. 147. Plains of Saskatchewan, near Rocky Mountains, Aug. 6th, 1858.

60. Plectrophanes lapponicus. No. 116 ♂. Forks of Saskatchewan, May 25th, 1858.

61. Plectrophanes pictus. No. 158 ♂. Watershed of Rocky Mountains, 49° north, Sept. 6th, 1858.

62. Plectrophanes ornatus. No. 105. Saskatchewan Plains, May 15th, 1858.

63. Passerculus savanna. No. 90 ♂. Forks of Saskatchewan, May 10th, 1858.

64. Poœcetes gramineus. No. 83 ♂. Forks of Saskatchewan, May 7th, 1858.
Specimen and eggs also obtained by M. Bourgeau, Plains of Saskatchewan, summer 1858.

65. Zonotrichia leucophrys. No. 163 ♂. Base of Rocky Mountains, east side, Sept. 14th, 1858.

66. Zonotrichia albicollis. No. 128 ♂. Forks of Saskatchewan, May 26th, 1858.

67. Junco hyemalis. No. 71 ♂. Forks of Saskatchewan, April 16th, 1858.

68. Spizella monticola. No. 9. Lake Winipeg, Sept. 24th, 1857.
No. 51 ♂. Forks of Saskatchewan, March 21st, 1858.

69. Spizella pallida. No. 111 ♂. Forks of Saskatchewan, May 21st, 1858.

Specimen and eggs also obtained by M. Bourgeau, Saskatchewan Plains, summer 1858.

70. Melospiza melodia. No. 74 ♂. Forks of Saskatchewan, April 23rd, 1858.

71. Melospiza lincolnii. No. 112 ♂. Forks of Saskatchewan, May 21st, 1858.

72. Guiraca ludoviciana. No. 134 ♂. Forks of Saskatchewan, June 2nd, 1858.

73. Pipilo arcticus. No. 126 ♂. Forks of Saskatchewan, May 27th, 1858.

74. Molothrus pecoris. No. 109 ♂. Forks of Saskatchewan, May 20th, 1858.

75. Agelaius phœniceus. No. 136 ♂. Forks of Saskatchewan, June 2nd, 1858.

76. Xanthocephalus icterocephalus. No. 113 ♂. Forks of Saskatchewan, May 21st, 1858.

77. Sturnella magna. No. 70 ♂. Forks of Saskatchewan, April 15, 1858.

78. Icterus baltimore. No. 113 ♂. Forks of Saskatchewan, June 2nd, 1858.

79. Scolecophagus ferrugineus. No. 60 ♂. Forks of Saskatchewan, March 31st, 1858. Eggs also obtained.

80. Scolecophagus cyanocephalus. No. 140 ♂. Forks of Saskatchewan, June 3rd, 1858. Eggs also

81. Quiscalus versicolor. No. 130 ♂. Forks of Saskatchewan, May 31st, 1858.

82. Corvus carnivorus. No. 32 ♀. Forks of Saskatchewan, Dec. 1857. Eggs also obtained.

83. Corvus americanus. Specimens and eggs obtained by M. Bourgeau, Plains of Saskatchewan, summer 1858.

84. Picicorvus columbianus. No. 154 ♂. Rocky Mountains, Aug. 22nd, 1858.

85. Pica hudsonica. No. 24 ♂. Forks of Saskatchewan, Nov. 16th, 1857.

No. 46 ♂. Forks of Saskatchewan, Feb. 20th, 1858. Specimen and eggs also obtained by M. Bourgeau, Plains of Saskatchewan, summer 1858.

86. Cyanura cristata. Not observed west of Forks of Saskatchewan.

87. Cyanura stelleri. No. 155 ♂. Rocky Mountains, 49° north, Sept. 2nd, 1858.

88. Perisoreus canadensis. No. 31. Forks of Saskatchewan, Nov. 16th, 1857.

Order IV. RASORES.

89. Ectopistes migratoria. Common in the interior.

90. Tetrao obscurus. No. 152 ♀. Eastern base of Rocky Mountains, near Belly River, Aug. 19th, 1858.

91. Tetrao franklini. No. 156 ♀. Rocky Mountains, west slope, 49° north, Sept. 3rd, 1858.

92. Pediœcetes phasianellus. No. 17 ♂. Forks of Saskatchewan, Oct. 31st, 1857.

No. 49 ♂. Forks of Saskatchewan, Dec. 20th, 1857. Eggs also obtained.

93. Lagopus albus. No. 30 ♀. North branch, Saskatchewan River, Dec. 20th, 1857.

Nos. 54, 55, 56. Lower Saskatchewan, Feb. 1858.

Order V. GRALLATORES.

94. Grus canadensis. No. 87. Saskatckewan Plains, May 3rd, 1858. Egg also obtained.

95. Charadrius virginicus. No. 18 ♀. Forks of Saskatchewan, Nov. 3rd, 1857.

No. 145 ♀. Forks of Saskatchewan, June 4th, 1858.

96. Ægialitis vociferus. No. 77 ♀. Forks of Saskatchewan, May 5th, 1858. Specimen and eggs, by M. Bourgeau, summer 1858.

97. GALLINAGO WILSONII. No. 129. Forks of Saskatchewan, May 31st, 1858.

98. GAMBETTA MELANOLEUCA. No. 3. Hudson's Bay, Aug. 13th, 1857.

99. GAMBETTA FLAVIPES. No. 81 ♂. Saskatchewan Plains, May 4th, 1858.

100. RHYACOPHILUS SOLITARIUS. No. 106 ♂. Forks of Saskatchewan, May 18th, 1858.

101. ACTITURUS BARTRAMIUS. No. 139 ♂. Forks of Saskatchewan, June 3rd, 1858.

Specimens and eggs obtained by M. Bourgeau, Plains of Saskatchewan, summer 1858.

102. LIMOSA FEDOA. No. 118 ♂. Forks of Saskatchewan, May 25th, 1858.

103. FULICA AMERICANA. No. 97. Forks of Saskatchewan, April 1858. Egg also obtained.

Order VI. NATATORES.

104. CYGNUS BUCCINATOR. No. 59 ♂. Forks of Saskatchewan, March 30th, 1858.

105. BERNICLA CANADENSIS. No. 61 ♀. Forks of Saskatchewan, April 2nd, 1858. Egg also obtained.

106. ANAS BOSCHAS. Nos. 57 ♂, 58 ♀. Forks of Saskatchewan, March 29th, 1858. Eggs also obtained.

107. DAFILA ACUTA. No. 68 ♀. Forks of Saskatchewan, April 13th, 1858.

No. 73 ♂. Forks of Saskatchewan, April 17th, 1858.

108. NETTION CAROLINENSE. No. 66 ♂. Forks of Saskatchewan, April 12th, 1858.

109. QUERQUEDULA DISCORS. No. 119 ♂. Forks of Saskatchewan, May 25th, 1858.

110. SPATULA CLYPEATA. No. 72 ♂. Forks of Saskatchewan, April 19th, 1858.

111. **Aythya vallisneria.** No. 100 ♂. Forks of Saskatchewan, May 15th, 1858.

112. **Bucephala americana.** No. 67 ♂. Forks of Saskatchewan, April 12th, 1858.

113. **Bucephala albeola.** No. 96. Forks of Saskatchewan, April 1858.

114. **Mergus americanus.** No. 14 ♂. Forks of Saskatchewan, Oct. 20th, 1857.

No. 69 ♂. Forks of Saskatchewan, April 14th, 1858.

115. **Larus argentatus.** No. 6 ♂. Hudson's Bay, Aug. 13th, 1857.

116. **Larus delawarensis.** No. 12. Saskatchewan River, Sept. 28th, 1857.

117. **Chroicocephalus franklinii.** No. 107. Saskatchewan Plains, May 16th, 1858.

118. **Chroicocephalus philadelphia.** No. 2 ♂. Hudson's Bay, Aug. 12th, 1857.

119. **Hydrochelidon plumbea.** No. 135 ♀. Forks of Saskatchewan, June 2nd, 1858.

120. **Podiceps cornutus.** No. 88 ♀. Plains of Saskatchewan, May 3rd, 1858.

III.—*Descriptions of Six New Species of Birds from the Isthmus of Panama.* By Geo. N. Lawrence, C.M.Z.S., &c.

Fam. TURDIDÆ.

1. **Heleodytes albo-brunneus**, sp. nov.

Male.—Head, neck, entire under plumage and under wing-coverts white; back, wings, and tail of a glossy umber-brown, tail rather lighter and narrowly crossed with darker nearly obsolete bars, the shafts of the central feathers whitish; thighs intermixed with light brown; under tail-coverts pale ochreous white with dusky stripes; upper mandible brownish horn-colour, the under white at the base with the end dusky; irides brown; legs and feet dark brown.

Length 7 in.; wing $2\frac{1}{8}$; tail $2\frac{1}{4}$; bill $\frac{3}{4}$; tarsus 1.

This very distinctly coloured species was observed only at one locality, which was on the line of the Panama Railroad, near the summit of the Atlantic slope. In form it agrees with *H. griseus* (Sw.). But few were seen, and no female obtained.

Fam. TYRANNIDÆ.

2. Pitangus albovittatus, sp. nov.

Male.—Crown and sides of the head blackish brown, crest gamboge-yellow; a broad band of white encircling the head, beginning at the bill and running over the eyes; upper plumage olive-green, quills and tail dark brown, the latter and the secondaries margined with pale-yellowish white; throat white, under-plumage bright yellow; under wing-coverts and inner edges of quills pale yellow; bill black; irides brown; legs and feet black.

Length $6\frac{1}{8}$ in.; wing $3\frac{1}{4}$; tail $2\frac{5}{8}$; bill $\frac{5}{8}$; tarsi $\frac{5}{8}$.

This *Pitangus*, of which the sexes are alike, is of about the size of *P. lictor*, but its colours are different. The bill is shorter and stouter, being of the same form as in the larger species of this genus.

3. Myiozetetes granadensis, sp. nov.

Male.—Upper plumage olive-green, with a concealed crest of bright orange-red; front, lores and superciliary stripe dull yellowish white; sides of the crown and occiput tinged with cinereous; wings and tail of a fine brown, edged with pale greenish yellow; throat greyish white with a slight tinge of yellow, under plumage bright deep yellow; bill black; irides light brown; legs and feet black.

The crest of the female is not quite so bright.

Length $6\frac{1}{2}$ in.; wing $3\frac{3}{8}$; tail $2\frac{7}{8}$; bill $\frac{1}{2}$; tarsi $\frac{11}{16}$.

In general colour this bird is much like *M. columbianus*, Cab. et Hein., but it differs in having the bill rather shorter and much broader at the base: the superciliary stripe is also quite indistinct; and it wants the pale-yellow tips of the wing-coverts, which exist in that species.

4. Todirostrum olivaceum.

Male.—Upper plumage olive-green; wings and tail blackish brown, the latter edged with olive-green; wing-coverts and quills margined with greenish yellow; under plumage pale yellow, with the throat olivaceous; under wing-coverts pale yellow; bill black, with the cutting-edges and base of the under mandible whitish; irides dirty white; legs and feet light brown.

The female differs only in being less olivaceous on the throat.

Length $3\frac{1}{2}$ in.; wing $1\frac{7}{8}$; tail $1\frac{9}{16}$; bill $\frac{1}{2}$; tarsi $\frac{5}{8}$.

This species has the same aberrant form of bill as *T. cinereigulare,* Sclater, the culmen being even more curved. As these two differ in this respect from the typical species, as suggested by Mr. Sclater (Ibis i. p. 444), it may be advisable to separate them *.

5. Tyranniscus parvus†, sp. nov.

Male.—Crown slaty-olive, a line of pale yellow from the bill over the eye; upper plumage deep olive-green; tail brown, edged with yellowish green, the under parts of the tail-feathers greyish with the shafts white; quills blackish-brown, and together with the wing-coverts edged with bright yellow; throat and breast ashy white, abdomen and under tail-coverts pale yellow, sides olivaceous; under wing-coverts pale yellow; bill dark horn-colour; irides white; legs and feet black.

Length 4 in.; wing $1\frac{7}{8}$; tail $1\frac{1}{2}$; tarsi $\frac{5}{8}$.

The female is like the male in plumage, but smaller, measuring in length only $3\frac{3}{8}$ inches.

6. Tyrannulus brunneicapillus‡, sp. nov.

Male.—Head above of a fine dark brown, with a narrow whitish line from the bill over the eye; upper plumage olive-green; tail brownish olive, edged with olive-green; quills blackish brown, narrowly margined with greenish yellow; under plumage bright yellow, with an olive tinge on the neck; under wing-coverts yellow; bill black; irides brown; legs and feet black.

---

* In the catalogue of my collection which I am now preparing, I have proposed the generic term *Oncostoma* for *Todirostrum cinereigulare.* Mr. Lawrence's bird forms a good second species of the genus.—P. L. S.

† This little bird is related to *Tyranniscus chrysops* (*Tyrannulus chrysops,* mihi, Proc. Zool. Soc. 1858, p. 10), but is apparently distinct.—P. L. S.

‡ A near ally of *T. semiflavus,* Scl. et Salv. (Proc. Zool. Soc. 1861, p. 300), from Guatemala, but differing in its brown head and larger bill.—P. L. S.

The female is similar to the male in size and plumage.

Length $3\frac{1}{8}$ in.; wing $1\frac{3}{4}$; tail $1\frac{1}{8}$; tarsi $\frac{1}{2}$.

IV.—*Remarks on the Mode of preparing and keeping living Thrushes and other Birds intended for Shipment to Australia.* By A. D. Bartlett, Superintendent of the Zoological Society's Gardens, Regent's Park.

In attempting to carry out this object, the greatest attention to the comfort and wants of the birds is essentially necessary to secure success.

They must be provided with sufficient good and suitable food, and with changes of food, and also with such cages as may best enable the persons who take charge of them to keep them clean and feed them with the least difficulty. By these means they may be preserved in good health during their captivity.

Before obtaining the birds, it is necessary to have a small room or aviary prepared for their reception, as follows:—Place in and about the room perches or bushes, especially in the corners, for the concealment of the wild birds; have a fine net strained over the window, to prevent them striking against the glass. Let the floor be sprinkled with grit or coarse gravel. Throw about the floor fruit (apples or pears; and if decayed, the better), chopped meat, bread-crumbs, worms, snails, &c. One or two shallow pans of water must be placed in the lightest parts of the room or aviary. One or two tame Thrushes, accustomed to the food, will be found a great advantage in the room. Everything thus ready, the birds cannot be too recently caught. They should be placed in the room as few hours after their capture as possible. Before turning them loose into the room, cut, with a pair of scissors, the first six feathers of the wings, and also the tail. Do not, however, cut them too short, so as to injure the hollow quills. The object in cutting the wings and tail is, first, that you prevent the birds dashing about and injuring themselves; and secondly, they get tame sooner, and are ready to go into a small cage without getting the tail- and wing-feathers covered with filth, which they would do if the tail was its entire length. Have placed about the room, and on the floor of it, a few of the small cages, with the doors open and food ready in the cages. In this way the birds can go in and out, and feed, and thus get accustomed to the cages before the doors closed upon them. By this treatment they are never much reduced, or in any way weakened, which is sure to be the case if they are put into small cages when fresh caught.

It is always a little difficult to get birds to feed immediately after their capture; but the above method has been found to answer admirably. It is of the greatest importance that they should not pine or get weak, as they seldom, or perhaps never, quite recover, but frequently linger for months, and such birds would be quite useless for the purpose intended.

Experience, during a long course of experiments undertaken with the view of ascertaining upon what food these birds might be best kept in perfect health and good condition, has led me to recommend the use of a much larger number of ingredients than is perhaps absolutely necessary. But, taking into consideration the chances of any accident or delay that may happen on board ship, it is well to know, by a fair trial, what can be used without risk. At the same time it is certain that the more the food is changed and varied the greater are the chances of success in keeping the birds in good health, taking into consideration the nature of their food in a wild state, varying as it must at different periods of the year.

In the foregoing remarks allusion has been made to the cages intended to convey these birds; and to this part of the subject, which requires especial notice, I have again alluded below. With respect, also, to cutting the wing- and tail-feathers, which would of course render the birds unable to fly (for a time only, as all birds moult these feathers at least once every year), the advantages of this painless operation will be readily seen, as it not only prevents injury to the bird, as before stated, but if the bird escape from its cage it is unable to fly, and is therefore easily caught and replaced.

The following list of articles used as food, and the mode of preparing the same, it is hoped, will be found sufficiently simple and clear to be easily understood; and the use of them can be safely recommended from long personal experience:—

Vegetable Substances.

Peas and pea-meal.
Barley, wheat, oats, Indian corn, or the meal of any of these.
Rice, whole or ground.
Fruit of all kinds, fresh or dried, raw or cooked.
Potatoes, cooked.
Carrots, raw or cooked.
Bread, biscuit, bran, or pollard.
Hemp-seed.

Animal Substances.

Meat, fresh or cooked, of any kind, except salted.
Liver, prepared according to instructions.
Eggs, boiled.
Insects.

In order to prepare the quantity of food required for a large number of these birds, two machines are recommended—one the mincing- or sausage-machine, made by Nye, of Wardour Street, Soho Square, the other a coffee-mill sold by the same maker. The necessity of these will appear by looking over the list of food, and the manner of mixing, &c. Not only is the amount of labour much reduced by the use of these machines, but the food is more equally prepared and better adapted for the birds than it can be made by hand.

In addition to each kind of food and the instructions as to its use hereafter given, it may be only necessary here to state that any of the different sorts of meal mentioned may form the basis of the food, and the other ingredients may be added, such as meat, fruit, &c., according to circumstances and the judgment of the person who has charge of the birds, as a change of climate and circumstances may lead to variation in their condition, which must be carefully attended to.

I find the quantity of food required for each bird to be about one ounce and a half per day, with the same quantity of water. At the same time, in very hot weather, a larger quantity of water may be required.

Gravel, sand, grit, ashes, or dry earth is always required in the bottom of the cages.

Peas, or Pea-meal.—Perhaps the best method of using the above is in the form of German paste, viz. fried with fat or oil, to which may be added sugar or treacle. In this way it may be kept a long time in tins or earthen jars. It can also be used in many other ways—for instance, mixed with moist food, such as soaked bread, meat, fruit, potatoes or carrots. The peas can be soaked or boiled, and then ground and mixed with other food. In fact, peas ground afford a good and wholesome diet, and can be strongly recommended for all birds that will eat them; and as they can be prepared in several ways, they are almost indispensable.

Ground Barley, Oats, Wheat, and Indian Corn soaked or boiled (*before grinding*).—Any of these can be used, and, mixed with fruit or meat, &c., form a good and wholesome food. Care is necessary not to give too large a quantity of them, especially when ground into fine flour, as it is liable to get too cloggy. The introduction of bran or, better, pollard (fine bran), will prevent this; but always use meat, fat, or fruit when flour is used.

Rice is best used with pea-meal, or some other food. By no means attempt to use it alone. Boil it until soft, and then mix with meat, fruit, meal, &c., or it may be fried in fat or oil, after having been boiled to make it soft. Ground rice can be mixed after having been scalded; but it is better to boil it until it is well done.

Bread, Biscuits, &c.—In feeding with these, if the bread or biscuit be stale or hard and dry, scald or soak it in water until quite soft, then rub it up with pea or barley meal, &c., until the required condition is obtained; then add meat or fruit, &c., if thought desirable, according to the condition of the birds.

Hemp-seed.—For many birds this seed is invaluable. It must not, however, be used too freely; for its stimulating power is apt to produce disease. In order to regulate its use, it is well to bruise or grind it, and then mix it with scalded or soaked bread, or other soft food. The reason why this is recommended is because some birds will not eat it whole, and, on the other hand, some birds will pick it out from the other food and eat nothing but this seed, and a fit of apoplexy generally follows. Still it is strongly recommended in moderate use, and a drooping bird will frequently be recovered by it. Care must be taken to see that the seed is good, which may always be ascertained by bruising it. When crushed it ought to be quite white inside and oily; if yellow or brown, it is rank and poisonous. Many valuable birds are lost by using bad hemp-seed.

Bran and Pollard.—Experience has shown that these may be used almost constantly. The birds are prevented from becoming too fat during their captivity by mixing bran or pollard with their food. These articles are especially good when mixed with meat, boiled rice, fruit, or fat.

Fruit (*raw, cooked, or preserved*).—Fruit of almost any kind appears to answer well, and, when prepared and mixed with any one or more of the different ingredients mentioned in this paper, forms a food at once acceptable to these birds. Judging from their condition after some months' experience, there can be no doubt of the beneficial effects of the fruits I have employed, viz. apples, pears, oranges, raisins, figs, currants, &c. The best manner of using them is to mix them with meal, bran, or flour, and to pass them through a mincing-machine. In this way they are chopped or ground fine enough to mix with the other food, the admixture of the meal preventing the loss of the juices of the fruits.

Potatoes and Carrots.—Potatoes require to be boiled or baked, and then ground or mixed with meat, fruit, meal, &c.

Carrots may be boiled and then mixed; or if first ground and put into a pan to stew or bake, then mixed, they answer instead of fruit very well.

Meat.—Flesh of almost any kind, raw or cooked, will answer (always avoiding that that has been salted). A small quantity of fat is not objectionable. It must be well mixed with meal, as too much fat would be injurious.

Liver.—As fresh animal food is not always at hand, liver can be prepared in the following way. It is found to agree well with the birds, and can be kept any length of time:—Cut a bullock's liver into slices, boil it half an hour, then cut it up in a mincing machine, place it in shallow dishes or tins, and put it into a slow oven until quite dry. In this state it may be kept well in tins, or still better in jars.

Eggs, boiled hard and chopped fine or ground, are excellent for most birds, and can be mixed with almost any kind of food.

Insects.—These are eaten by most birds. A few are good for them, such as earth-worms, caterpillars, meal-worms, flies, maggots, grasshoppers, &c. Do not, however, adopt the too frequent use of living food, as birds are apt to crave after this kind of food and to refuse to eat that prepared for them. Snails can be kept for a long time; and as they form a large portion of the food of Thrushes in a wild state, their use is recommended, as they can be chopped up and mixed with the other kinds of food.

Cheese can be occasionally given with the other food, but sparingly. In the event of liver or other animal substances failing, cheese (ground or minced fine) will answer.

I have now spoken of the various kinds of animal and vegetable food best adapted for these birds. It is necessary to add a few words about the cages which I have found most suitable for containing the captives during the voyage. Each cage need not be more than eight inches square; the bottom part being formed like a tray, one inch and a half deep. In the front part of this tray is a division of one inch and a half wide; this division is again divided into two parts, the one on the right three inches and a half long, the one on the left four inches and a half long,—the former coated with pitch and made to hold the water, the other division to contain the food. These trays or bottoms are made to hook on to the cage by two hooks and eyes, the bottom of the upper part of the cage being furnished with bars across, from side to side, close enough to prevent the bird getting through. The front part of the cage, over the feeding and water trough, is carried an inch more forward at the bottom than the back or sides of the cage, which enables the bird to obtain the food without difficulty, and the food and water are by this projection kept clear of the dirt of the bird. A perch also is required, nearly in the middle of the cage, from side to side.

V.—*Notice of some New Species of Birds from Upper Burmah.*

By Surgeon-Major T. C. Jerdon.

The following birds were obtained by me near Thayetmyo, our frontier station in Burmah. The climate and productions, both vegetable and animal, are quite distinct from those of Lower Burmah. The climate is comparatively dry; and the vegetation partakes of the character of the dry countries of India, mixed with some of the forms peculiar to Burmah. Ferns and orchids are few and rare.

I was only in this locality for two or three months, but managed to obtain a few novelties and some interesting birds that have lately been described. Among these is *Chatarrhœa gularis,* Blyth. This bird is abundant and familiar, entering compounds and building in the hedges. It is a typical Chatachee, and when hopping with great bounds gives you the idea of a rat rather than of a bird. It has the usual whistling call of its congener in India. *C. earlei,* Blyth, is also not rare, but is confined entirely to the long grass and reeds on the islands and churrs of the Burrampootra.

I obtained both sexes of the little-known *Pratincola leucura,* Blyth, which has only hitherto been sent from the banks of the Indus, and is figured among the drawings of the late Sir A. Burnes. It appears not to be rare here, but is only found in the bed of the river in the long grass. I never saw it once in the jungle that lines the banks.

Lanius hypoleucus, Blyth, is common, and the only true Shrike I saw. I believe the Parrakeet will turn out to be a new species. I shot several on my arrival, but being in imperfect plumage (nearly unmixed green), I rashly concluded them to be young birds of *Palæornis barbatus,* which I had not myself had opportunities of observing in India. The call is peculiar, gentle, and distinct from that of *P. torquatus,* which species it appears to resemble most closely, but it has no ring. I found it in the month of May in large flocks, feeding in the bed of the river on cow-dung. A plain-coloured Bulbul (*Pycnonotus*) is common at Thayetmyo, but I have very little doubt that Mr. Blyth has already described it. It is of a dingy greenish-brown ochre, paler and albescent beneath, with yellowish under tail-coverts, and the ears with the barbs of the feathers dead-white *.

(1.) CRYPSIRHINA (TEMIA) CUCULLATA, Jerdon, n. sp.

White, head and neck deep glossy black; the rest of the plumage pale, somewhat brownish ash-colour, faintly glossed with a vinous tinge on the tertiaries, tail-feathers, and the plumage beneath; a semi-collar of white round the upper part of the neck, separating the black from the ash colour; quills unglossed black; some of the secondaries edged externally with ashy white, and the wing-coverts also faintly edged with the same, forming a longitudinal light bar along the wing; the centre tail-feathers black, widened at the tip, suddenly on the outer web, gradually on the inner web; bill black; legs brown-black; iris very pale glaucous-blue. Length 12 inches; expanse 13; wing $4\frac{1}{2}$; tail 7; bill $\frac{5}{8}$; tarsus 1.

The tail is much graduated, and as in its congener, *Crypsirhina* (*Temia*) *varians*, consists of ten feathers. Compared with that bird, the tail-feathers, judging from a drawing I have, are much narrower, and the broad termination more marked. The bill also appears to be comparatively shorter.

I found this neatly plumaged little Magpie not rare at Thayetmyo, in Upper Burmah. It was generally seen singly, now and then in pairs; wanders about a good deal in low jungle, and feeds on grasshoppers, locusts, Mantides, and the like. I have seen it catching white ants, as they issued from their nest in the winged state, with considerable dexterity, returning usually to the same perch. It breeds early, I imagine, for I killed young birds in June. They differ from the old ones in having the hood dusky-ashy, instead of black. A native Shikaree assured me that it occasionally perched on the backs of cattle, to devour the insects that often infest them.

(2.) PERICROCOTUS ALBIFRONS, Jerdon, n. sp.

Male.—Crown of head, nape, back, wings, and tail glossy black; forehead and a wide supercilium white; lores and ear-coverts mixed white and black; chin, throat, sides of neck, nearly meeting on the back of the neck, the greater coverts, tertiaries, and a band of the primaries, and the whole of the lower parts white; all the tail-feathers, except the four centre ones, broadly and obliquely tipped with white; the breast with a gorget of shining orange-red, and the rump the same, mixed with white. Bill black; legs dark brown; irides light brown. Length $6\frac{1}{4}$ inches; expanse 8; wing $2\frac{3}{4}$; tail $3\frac{1}{4}$; bill rather more than $\frac{5}{16}$; tarsi $\frac{9}{16}$?

---

* If new, *Pycnonotus blanfordi*, Jerdon.

The female differs in having the parts that are black in the male sooty brown, in wanting the breast-spot of the male, and in the rump being only slightly mixed with red.

This pretty little bird is the representative in Upper Burmah of the *P. erythropygia* of Southern and Central India, from which it differs conspicuously in the white forehead and in the somewhat paler and more aurora tinge of the red on the breast and rump. It is found usually in pairs or in small families, chiefly in low and thorny jungles, not frequenting the dense forests. It is active and restless, flitting about the smaller branches and feeding on various insects, which it usually picks off from a leaf or twig, now and then catching one in the air.

(3.) STURNIA BURMANNICA, Jerdon, n. sp.

Head (crested), face, throat, and neck in part sullied or cinereous white; the feathers of the head long and very narrow; back and scapulars dingy grey, paling on the rump and upper tail-coverts; wings with the shoulders dark grey, the lesser coverts glossy hair-brown, the greater coverts and secondaries pale, glossed, yellowish brown, the latter deep brown on their inner webs; the primary coverts mixed black and white; primaries deep brown, pale at the tip, and with a white bar near the base, forming a white wing-spot; tail with the two centre feathers glossy brown, the outer ones black with a broad white tip; plumage beneath, from the breast, pale vinous, albescent on the middle of the belly and vent, and white on the under tail-coverts; flanks of abdomen inclining to greyish. Bill orange-red, the nostrils and two-thirds of the lower mandible dusky; orbital skin blackish; irides yellow-brown; legs and claws deep yellow. Length 9 inches; expanse $13\frac{1}{2}$; wing $4\frac{1}{2}$; tail 3; bill $\frac{11}{16}$; tarsus $1\frac{1}{4}$.

This Mynah is somewhat aberrant, being allied in its colouring and less robust form to *Sturnia,* but approaching *Sturno-pastor* in its red bill and habits. It is a Ground-Mynah, of familiar habits, feeding in the compounds and about villages in Upper Burmah, and breeding in holes in old trees. At the pairing season it is generally in pairs; afterwards small flocks of them are seen together, and many resort together in the same tree. It is rather a silent bird, but has the usual Mynah-like call when it takes wing. It feeds chiefly on insects.

(4.) STURNIA NEMORICOLA, Jerdon, n. sp.

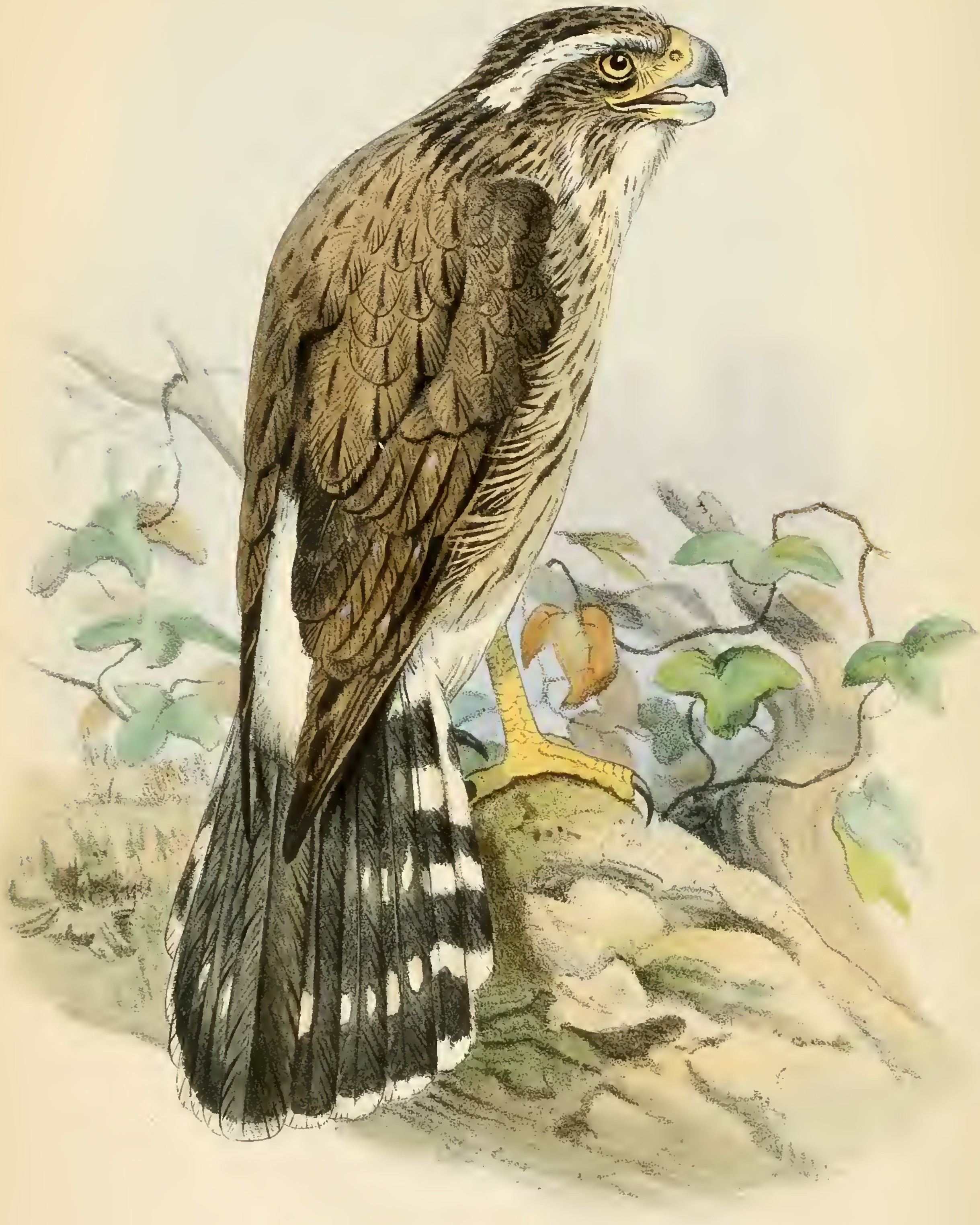
Head, nape, face, and whole lower parts white; the back of the neck, back, and wings ashy, tinged with ferruginous on the upper tail-coverts; quills black; secondaries the same, edged with grey externally; winglet, and a spot on the greater coverts, pure white; thigh-coverts tinged with rusty; tail-feathers blackish on the inner web, more or less grey externally, and tipped with chestnut, increasing in extent from about $\frac{1}{8}$th of an inch on the middle feathers to $\frac{3}{4}$ inch on the outer tail-feathers. Bill blue at the base, then green, with the tip yellow. Irides glaucous white; legs dull yellow. Length $7\frac{3}{4}$ to 8 inches; expanse $12\frac{1}{2}$; wing 4; tail $2\frac{1}{2}$; bill $\frac{5}{8}$; tarsus $\frac{7}{8}$.

This is a typical *Sturnia,* and, like my *S. blythii* and *S. malabarica,* keeps entirely to the forests and to the tops of the trees. It has a pleasant warbling song.

(5.) CHRYSOMMA ALTIROSTRE, Jerdon, n. sp.

Above pale reddish brown, deepest on the wings and tail; forehead and streak over the eye hoary grey; beneath whitish, tinged on the lower part of breast, abdomen, and flanks with pale fulvescent; quills and tail-feathers slightly dusky on their inner webs; under wing-coverts pale ferruginous. Bill fleshy horny; legs fleshy; irides dark brown, with an outer circle of white; eyelids pale sulphur-yellow. Length $6\frac{1}{4}$ inches; expanse $7\frac{1}{2}$; wing $2\frac{3}{8}$; tail 3; bill $\frac{3}{8}$, $\frac{1}{4}$ inch high; tarsus 1.

This interesting bird is very closely allied to *Chrysomma sinense,* for a young bird of which I at first glance mistook it. It differs however in some important particulars, more especially in the depth of the bill, in which it makes an approach to the *Paradoxornis* group. The claws are more lengthened and less curved



J. Jennens, lith. M & N. Hanhart, Imp^{t}

FALCO CIRCUMCINCTUS.

than in that species. It will probably be considered worthy of separation as a subgenus. I found it frequenting long grass in islands on the Burrampootra river, in Upper Burmah. It had partaken of ants and small Coleoptera.

VI.—*Note on* Falco circumcinctus, *a rare Bird of Prey from South America.* By Philip Lutley Sclater.

(Plate II.)

At a meeting of the Zoological Society in February 1851, Professor Kaup described as new a small species of Falcon from a single specimen then in the late Earl of Derby's collection at Knowsley, and referred it to the genus *Harpagus,* under the title *Harpagus circumcinctus,* at the same time proposing for it the new subgeneric appellation "*Spiziapteryx* *."

"One of the most interesting birds," says Dr. Kaup, "in the collection of Lord Derby is a little Falcon, belonging to the subfamily *Falconinæ,* which enables me to correct the characters of the genus *Harpagus.*

"The characters must be changed as follows:—Bill large, with two teeth, slender and indistinct, or strong and distinct; wings short, and in the proportions of the quills very like *Nisus* seu *Accipiter*; toes short, and the inner and outer toes of the same length.

"The genus *Harpagus* must be divided into two subgenera.

"The oldest subgenus (*Harpagus*) must be distinguished by the following characters:—Two strong and distinct teeth; the nostrils placed near the end of a soft membrane covering a large cavity; tibiæ with scales not divided.

"Two species, *H. diodon* and *H. bidentatus.*

"The other subgenus, in which this new species must be placed, must be characterized:—Two slender indistinct teeth; the nostrils round, very small, and bored in the nasal bones; the first wing-feathers with very distinct emarginations, the fourth the longest; tibiæ with whole and divided scales.

"I give this subgenus the name of *Spiziapteryx,* and the species I have named

---

* See Proc. Zool. Soc. 1851, p. 42.

"HARPAGUS CIRCUMCINCTUS.

"*Diag.*—Size of the Kestrel, with white stripe over the eye, which encircles the whole head, and is connected with a white collar; the tail-coverts, above and beneath, white.

"*Descr.*—Rufous ash-grey, beneath lighter, with dark-brown shaft-stripes; the white stripe over the eye and the collar black-margined; tibia-coverts white; the arm- and hand-wings white at the roots, and, like the stronger covert-feathers, with white spots and bands on the inner and outer webs; the first wing-feather without spots on the exterior web, and with fine white spots on the interior web; tail black-brown, beneath with white roots, and three small white bands and an end-band; the fifth without spots on the exterior web; the fourth with only traces; the third exhibits round white spots; and the two exterior feathers are white-banded. From this very irregular distribution of spots, the tail, seen from above, exhibits a very irregular drawing. Cere, naked eye-region, and feet yellow; nails dark brown.

"I apprehend that this specimen—the only one in England—is not a very old bird. Lord Derby received it from Chili, where it was obtained by Mr. Bridges.

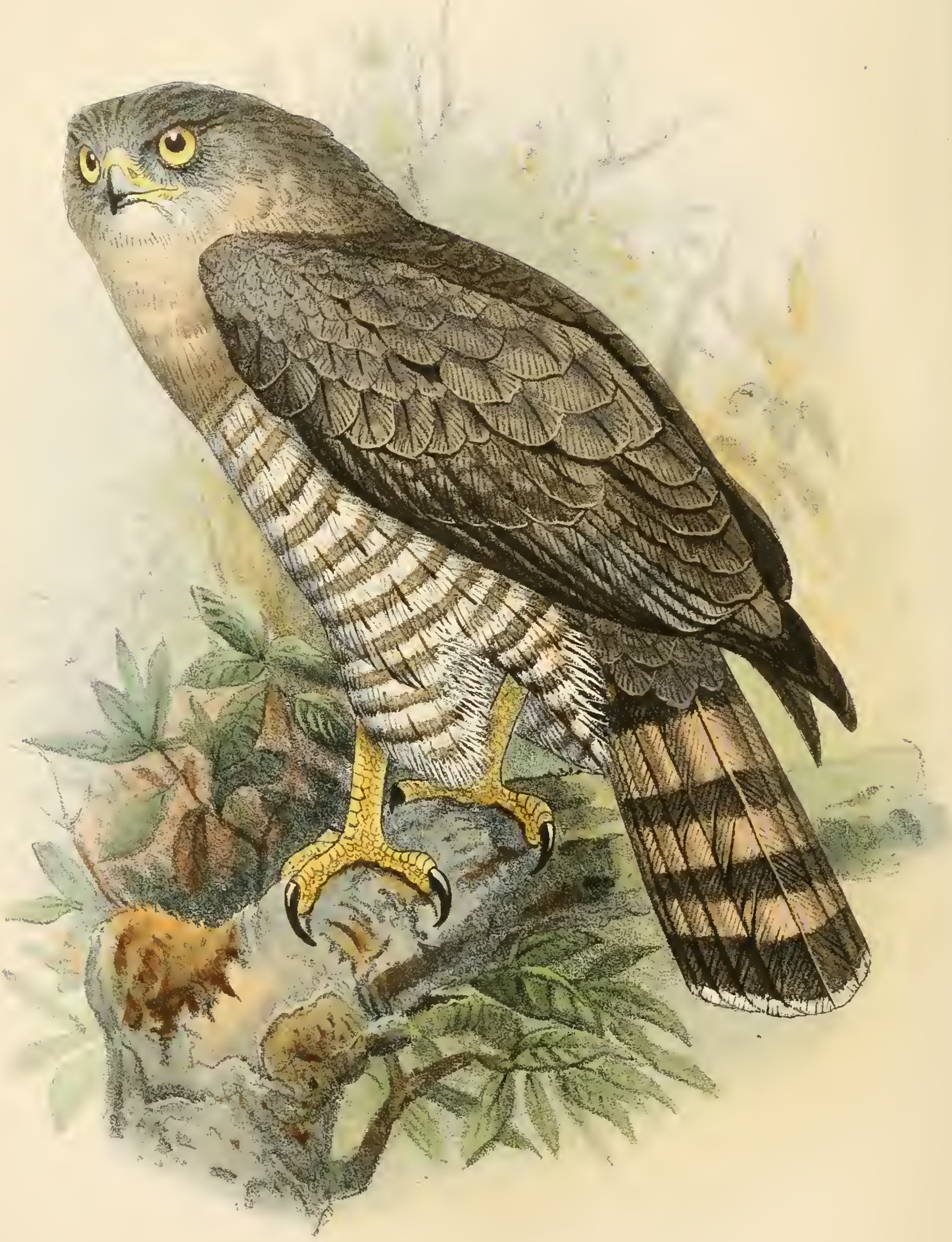
"*Dimensions* (in French centimètres).—Head, 49; bill, from the cere, 16; from the gape, 22. Height, 13; breadth, 20; over wing, 123; tip of the wing, 56; middle tail-feather, 148; outer tail-feather, 115; tarsus, 45; middle toe, 26; nail, 11; outer toe, 17½; nail, 10; inner toe, 16; nail, 12; after toe, 13; nail, 13."

The accompanying illustration (Plate II.) is a reduction from an accurate water-colour drawing of this bird, made by Mr. Wolf for Mr. J. H. Gurney's portfolio. Through the kindness of Mr. Thomas J. Moore, the present curator of the Derbian Museum at Liverpool, the typical specimen was, by permission of the trustees of that collection, transmitted to London for the purpose of being figured; and I have thus had an opportunity of examining it carefully. It is, I think, certainly distinct from any previously described species of the group; but, as has been already mentioned in these pages*, is probably identical with Prof. Burmeister's *Falco punctipennis*, described in the 'Journal für Orni-

---

* See 'Ibis,' 1861, p. 200.

Ibis.1862.Pl.3



J. Wolf del.
J. Jennens lith.

M. & N. Hanhart, Imp.

CIRCAETUS FASCIOLATUS.

thologie' for 1860, p. 242, in terms which may be translated as follows:—

"Size of *Falco aurantius.*—Above brown-grey, feathers with black shaft-stripes; greater wing-coverts with white points on each web; wing- and tail-feathers banded across with white spots, the two middle rectrices unspotted. Below yellowish white, with blackish-grey shaft-stripes from the chin to the belly; below the under mandible a rather broad beard-stripe. Bill grey; under mandible yellow; legs yellowish grey; tarsus rather long, toes shorter.

"*Hab.* Biga de la Paz; Pampa."

It would perhaps have been hardly possible to have identified Prof. Burmeister's *Falco punctipennis* with Dr. Kaup's bird solely from this description; but I may state that, when at Halle in October 1861, I had the pleasure of examining this and other rare types collected by Prof. Burmeister at his different stations in La Plata. I immediately recognized the species, and although I had no opportunity of making a very accurate examination of it, I am pretty confident that I am not mistaken as to its identity with Dr. Kaup's *Spiziapteryx circumcinctus.*

Whether the bird is really referable to the genus *Harpagus* is, I think, a matter of much doubt, and, until more is known of it, and we have become acquainted with its change of plumage and other characteristics, it will be safer to use for it the generic appellation *Spiziapteryx*, or leave it under the more general designation of *Falco circumcinctus.*

VII.—*An additional List of Birds received from Natal.*

By John Henry Gurney, M.P., F.Z.S.

(Plate III.)

Having had the pleasure of receiving from Mr. Thomas Ayres, of Natal, some additional species of birds collected by him in that colony, I beg to communicate a list of them for insertion in the 'Ibis,' together with the accompanying observations which Mr. Ayres has been so good as to send me, and to which I have appended a few notes of my own.

The additional species are numbered consecutively to those recorded in the 'Ibis,' vol. iii. pp. 128–135.

146. EPHIALTES LEUCOTIS (Temm.). White-faced Scops Owl.

Female. Iris dark yellow; cere light yellowish brown; bill the same, but yellow at the tip of both mandibles.

This bird was shot about ten miles inland; its eggs, which are sent with it (two in number), were laid in a small cavity on the top of the stump of a pollard Banyan fig-tree, about twenty feet from the ground; there was not the slightest appearance of a nest having been made, but a few coarse dry fig-leaves which had fallen in accidentally (other cavities being similarly filled) served to line the bottom of the hollow. One of the eggs was quite fresh; the other contained a young bird, which would probably have broken the shell in two or three days.

This was in the month of June (mid-winter here). The stomach of the old bird contained remains of mice.

[In a collection of birds which my friend, Mr. C. J. Andersson, was good enough to send me recently from Damara-Land, there are three nestlings of this Owl taken at Elephant's Vley in the month of September. These young Owls are partially fledged, and their plumage, so far as it is developed, resembles that of the adult birds. The two eggs sent by Mr. Ayres are of a pure white; their transverse diameter is about the same as that of the egg of the Long-eared Owl (*Otus vulgaris*), but their longitudinal diameter is about an eighth of an inch less than it is in the egg of that species.

The plumage of this small Owl presents a singular resemblance (especially in the markings on the side of the head) to one of the largest of the African Eared Owls, *Bubo lacteus*; but the colour of the iris, which is an important guide in classifying the groups of Owls, differs, being of an extremely dark hazel in *Bubo lacteus*, whilst in *Ephialtes leucotis* it is dark yellow.—J. H. G.]

147. PHASMOPTYNX CAPENSIS (Smith). African Short-eared Owl.

Male. Iris light reddish brown; bill very dark brown; feet dirty brown.

[The late M. Favier, of Tangiers, supplied me with some specimens of this Owl from that locality, which appear to me identical with the example transmitted from Natal by Mr. Ayres. M. Favier sent me at the same time the following curious note with reference to this species:—" *Strix* (*Phasmoptynx*) *capensis* is found in the environs of this city both as a resident and also as a bird of double passage, while *Strix brachyotus* is found as a bird of double passage only, merely remaining in the neighbourhood of Tangiers long enough to nest. These two species, of which the nidification is very similar, sometimes pair and produce mules, which present an appearance intermediate between the two species. This is strikingly exemplified in the colour of the iris, which in *S. capensis* is always of a blackish brown, and in *S. brachyotus* of a pure yellow; whilst the hybrid birds show a partially yellow iris, the yellow appearing only half the size of the yellow iris in *S. brachyotus*."—J. H. G.]

148. MELITTOPHAGUS ERYTHROPTERUS (Gmel.). Little Rufous-winged Bee-eater.

Female. Iris crimson; bill black; tarsi and feet pinkish brown.

These Bee-eaters are particularly fond of frequenting reedy marshes and swamps, and are to be found here in certain localities all the year round. They are by no means so plentiful as Savigny's Bee-eater, which is only here in the summer months. It is seldom that more than five or six are to be seen together, and generally not more than two. When feeding, their flight is not so prolonged as that of Savigny's, neither is their note so loud and harsh.

149. PROMEROPS CAFER (Linn.). Caffre Sun-bird.

Male. Iris brown; bill black; tarsi and feet greenish black. In habits this bird much resembles *Nectarinia natalensis*, its food also being the same, viz. nectar and small insects, especially spiders. It is very rare in this locality, and is besides more shy than most other species. I believe it is only to be found here during the winter months.

150. IRRISOR ERYTHRORHYNCHOS (Lath.). Red-billed Laugher.

Male and *female.* Iris very dark brown; bill scarlet; tarsi and feet scarlet. The food of these birds consists almost entirely of a species of cockroach, which they take from the crevices of rough-barked trees, and in search of which they creep about the trunk and branches somewhat similarly to the Woodpeckers. In this manner their tail-feathers frequently become much worn.

From four to eight of these birds are generally together, and frequent bushy country; they have a loud chattering note, and are extremely restless in their habits. They have a peculiarly powerful and disagreeable smell.

151. DRYMOICA SUBFLAVA (Gmel.). Citrine Drymoica.

Female. Iris light reddish brown; upper mandible brown, under yellowish; tarsi and feet pale. Their favourite haunts are amongst long tall grass and rough weeds and hedgerows; their flight is weak; if disturbed they fly a few yards and then hide in the grass. When hopping amongst the stems of weeds, the tail is most frequently carried perpendicularly. Occasionally from four to six are seen together, but more generally they are single or in pairs. Their food, I believe, consists entirely of insects.

152. PARUS NIGER, Vieill. Black and White Tit.

Female. Iris dark brown; bill black; tarsi and feet slate colour. These birds are active in their habits, constantly hopping about amongst the upper branches and twigs of trees, hunting for insects, of which I believe their food entirely consists. I never observed more than two of them together.

153. MACRONYX AMELIÆ (De Tarr.). Amelia Lark.

Male. Iris dark brown; bill, upper mandible brown, the under pale. These beautiful birds are not nearly so common as most other species in Natal; they are to be found along the coast on marshy flats, and are fond of perching on small mounds early in the morning and sunning themselves. Of their habits I know nothing.

154. JUIDA MORIO (Daud.). Roupenne Grakle.

Male. Iris double, inner circle dark brown, the outer circle crimson; bill black; tarsi and feet black. These birds are gregarious, excepting during the breeding season: small fruits form their principal food, such as mulberries, of which they are very fond. Two of these birds perched on a tree, not long since, close to my house, one evidently a young one; the old bird, after swallowing a number of small berries, went to the younger and proceeded to feed it, by disgorging the berries one by one and giving them to the young one, precisely as pigeons do. Their note is a loud and rather prolonged whistle; they are not seen here at all times of the year.

155. JUIDA MELANOGASTRA (Swains.). Black-bellied Grakle.

Male. Iris darkish yellow; bill black; tarsi and feet black. These Grakles are also gregarious, inhabiting bush land; their food consists of small fruits. Notes, for the most part, loud and harsh.

156. PHOLIDAUGES LEUCOGASTER (Gmel.). White-bellied Grakle.

Male. Iris light yellow; bill black; tarsi and feet dark brown. Also gregarious, but not nearly so plentiful as most other species of Grakle here. Like the preceding, small fruits form their principal diet, although they sometimes feed on flies and the winged females of the white ant, rising and taking them on the wing, similarly to the Flycatchers. In fact, almost every bird and beast that I know will occasionally feed on these insects, which in the spring of the year swarm out by millions, when hawks, dogs, cats, toads, &c., &c., all feast alike.

157. ANDROPADUS IMPORTUNUS (Vieill.). Sombre Bulbul.

Male and *female.* Iris very pale green; bill dark brown. These birds are very destructive to fruit, but fortunately are not nearly so numerous as *Pycnonotus levaillantii.* They inhabit the dense bush generally. They are not easily seen, in consequence of their sombre-green plumage, and their habits of hiding, to which they trust for safety, rather than to flight. Their note much resembles the "chisick" of the House-Sparrow at home, but is much louder; they have also a short warbling song. Besides fruit, insects form a considerable portion of their food.

158. TCHITREA PERSPICILLATA (Swains.). Tchitrec Paradise Flycatcher.

Male. Iris very dark brown; eyelids and bill sky-blue, but the bill black at the tip; inside of the mouth and tongue pale yellow; tarsi and feet slate colour. During the summer months the beauty of the male is much enhanced by two long feathers which grow from the tail, and are from ten to twelve inches in length.

These Flycatchers are by no means scarce in Natal; they frequent bushy land, and are found within a range of twenty miles from the coast. Their note is harsh, with the exception of one short warble which they frequently repeat, and which both male and female have to an equal degree. Their food consists of flies, gnats, and small beetles. Five or six of these pretty birds may frequently be seen together, generally one or two males to four or five females; and pleasant it is to watch their graceful motions when in pursuit of their food.

159. TCHITREA CYANOMELÆNA (Vieill.). Fantail Paradise Flycatcher.

Iris very dark brown; bill slate colour; tarsi and feet slate colour. In habits these Flycatchers are excessively active, incessantly hopping and flying from twig to twig amongst the underwood in search of small flies and beetles. When thus employed, they frequently expand the tail to its fullest extent, sometimes perpendicularly, then to one side or the other, and again downwards, which has a very pretty effect. Their note is harsh, and much resembles that of the Tchitrec Paradise Flycatcher.

160. PHRYNORHAMPHUS CAPENSIS (Smith), Kaup, P. Z. S. 1851, p. 52. South African Broad-bill.

Male. Eye large and full; iris dark umber brown; upper mandible nearly black, under pale; tarsi and feet pale. The stomach contained small beetles and a species of bug. These birds frequent the dense bush, and are by no means plentiful; they have a curious, harsh, loud and monotonous note, which almost exactly resembles that of *Ephialtes capensis*, and is uttered at about the same intervals four or five times in a minute: "kroo," with a good roll on the *r*, would describe the note tolerably well. Each time the bird makes this noise (which is about two seconds in duration), he flits round in a small circle about a couple of feet in diameter, and alights again exactly on the spot from whence he started.

161. Dryoscopus cubla (Shaw). Puff-Shrike.

Male and *female.* Iris reddish yellow; tarsi and feet slate colour; bill of the male black; that of the female, upper mandible black, lower mandible bluish slate colour, black at the tip. These Shrikes inhabit the dense bush, and are to be found generally dispersed within a range of fifteen miles from the coast. Insects form their principal food. Their notes are loud and harsh. The snow-white lax feathers on the back, when expanded, give these birds a most beautiful and curious appearance; the puff appears completely to encircle them, and when thus flying away, they look, at first sight, like a white ball, with a black spot in the centre. This power is most frequently used during the courting season, and also occasionally when alarmed.

162. Nilaus capensis (Shaw). Brubru Shrike.

Male. Iris very dark red; bill black, with the exception of the basal half of the under mandible, which is bluish slate colour; tarsi and feet dark ash. The only bird I have seen of the kind. Flight dipping, something similar to the smaller Cuckoos. I am ignorant as to its habits.

163. Corvus cafer (Licht.). Caffre Raven.

Male. Bill black, tip white; tarsi and feet black. These birds are very numerous in Natal; they are generally dispersed over the colony, and perform the part of scavengers. If an ox or other beast dies, numbers of them immediately appear, generally before the Vultures, which they drive away as long as they are able. They are bold birds, and carry away chickens and eggs. Some people have had full-grown fowls killed by them.

164. Estrelda astrild (Linn.). Wax-bill Finch.

Male and *female.* Iris brown; bill bright red; tarsi and feet dark brown. This species of Finch is by far the most common in Natal; during the winter months immense flights of them may be seen. They are fond of frequenting cultivated ground, especially that on which the weeds have been allowed to grow and seed, where they find abundance of food. I have seen them occasionally take the young queens of the White Ant, rising in the air and taking them on the wing; but they appear to have much difficulty in catching them, possibly from the smallness of their mouth. They build close to the ground amongst thick and tall grass.

165. ESTRELDA DUFRESNII (Vieill.). Dufresne's Finch.

Male and *female.* Iris crimson; upper mandible black, under scarlet; tarsi and feet very dark brown. These Finches are by no means so plentiful as the preceding, seldom more than eight or ten being seen together; when feeding, they hop about on the ground and pick up the ripe grass-seeds which have fallen. They build a nest somewhat similar to the red-billed species, but instead of being close to the ground, they place it in the upper twigs of some low bush six or eight feet high.

166. CORYTHAIX PORPHYREOLOPHUS (Vigors). Purple-crested Plantain-eater.

Female. Iris dark brown, eyelids crimson; bill black; tarsi and feet very dark brown. When the bird is fresh killed, the outer toes are nearly versatile, easily extending two-thirds round. They are common in the dense bush along the coast, and in the spring of the year disperse within a range of fifteen miles inland, returning again for the summer, autumn, and winter to the bush more immediately on the line of coast. A dozen of these beautiful birds may frequently be seen together, climbing and running along the branches of the forest trees somewhat similarly to monkeys. Their food consists of hard nutty berries and small fruits, which they swallow whole. Their note is loud and discordant; the alarm-note is given very suddenly.

167. LÆMODON NIGROTHORAX (Cuv.). Black-collared Barbet.

Male and *female.* Iris bright reddish brown; tarsi and feet dark brown. Their food appears principally to consist of small fruits and berries, which they swallow whole. Their note is particularly loud; "kook-kooroo," quickly repeated eight or ten times, would resemble it: frequently both the male and the female call at the same time, and when perched close together keep up a quick succession of bows to each other, and bow at every repetition of the note. They are tolerably plentiful within a range of fifteen miles from the coast.

168. DENDROBATES FULVISCAPUS (Ill.). Yellow-shafted Woodpecker.

[Sent from Natal, but not by Mr. Ayres.—J. H. G.]

169. YUNX PECTORALIS, Vigors. Pectoral Wryneck.

Male. Iris reddish brown; tarsi and feet very dull light green. The note of these birds very much resembles that of the "Cuckoo's-mate" in England. Their food consists of flies, beetles, &c., of those kinds which bore and live in dead wood; but although I have seen many of these birds, I have never observed them hammering the trees like Woodpeckers, and am therefore inclined to think that they obtain their food more by probing apertures from the surface with their long tongues and drawing the insects out, than by working holes with their bills. They frequently sit on a bough for a considerable length of time, uttering at intervals their monotonous call. Their flight is rather heavy and dipping. I have not noticed them here during the summer.

170. INDICATOR MAJOR, Stephens. Greater Honey-guide.

Female. Iris, bill, tarsi and feet all dark brown. These birds frequent bushy and forest land, and by their incessant chattering attract the notice of the traveller, whom they will at once direct to the nearest bees'-nest. When arrived at the spot, they remain stationary in the boughs above, waiting patiently for their share of the spoil. The Caffres are well acquainted with the habits of these birds, and having taken the honey and comb, always leave a certain portion stuck on a stick, with the young bees in, for the bird as a reward, which he eats as soon as the coast is clear.

171. TRERON DELALANDII (Bp.). Delalande's Pigeon.

Female. Iris light blue, whitish towards the pupil; basal half of bill crimson, the remainder light slate-colour; tarsi and feet vermilion. These Pigeons are gregarious, feeding on the soft fruits and berries peculiar to the bush, and never feeding or, to my knowledge, alighting on the ground; their flight is extremely rapid.

172. HÆMATOPUS MOQUINI, Bp. African Black Oyster-catcher.

Male. Iris, eyelid, and bill scarlet; tarsi and feet pink. These curious birds are very scarce in Natal; they frequent the seashore, are active in their habits, and run with considerable swiftness; they feed along the sandy beaches; on the receding of a wave they run quickly into the shallow water, and inserting their wedge-shaped bill up to their heads in the sand, haul out small crabs, which having secured they run high and dry to devour at leisure.

173. MYCTERIA SENEGALENSIS (Shaw). Saddle-bill Jabiru.

Female. Iris bright yellow; base of bill to nostril bright crimson, as is also the skin round the eye and under the bill (the bill, from the nostril for 3½ inches, is black; from thence to the tip bright crimson); frontal shield bright yellow; shanks and tarsi black; knees and feet brickdust red; the bare spot on the breast bright crimson. The Jabiru is a very scarce bird in Natal; a pair are occasionally seen at low water on the mud-banks in the centre of the bay, and when here they also frequent the lagoons and marshes at the mouths of the rivers. If one of the pair happens to get shot, its place is not supplied by another, but the solitary bird may be seen feeding by himself, when he attempts to make friends with the Violet Storks, which seem to be rather afraid of their gigantic relation. Occasionally when the pair are feeding together, they stop suddenly and skip or dance round and round in a small circle, then stopping to bow to each other, again resume their quaint dance. Their food consists of crabs, shrimps, and small fish.

174. PHILOMACHUS PUGNAX (Linn.). Ruff.

Female. Iris dark brown; bill very dark brown; thighs, tarsi and feet yellowish ash (in other specimens green, and in some slate-coloured). These birds are gregarious, frequenting the bay and the coast, and feeding on the mud-banks at low water; marine insects appear to be their favourite food.

175. TRINGA SUBARQUATA (Gmel.). Curlew Sandpiper.

Male. Iris dark brown; tarsi and feet black. These birds are gregarious, frequenting the bay in considerable flights, and feeding on the mud-banks when the tide recedes; they run about on the mud with great activity, and their flight is also exceedingly swift.

176. LIMNOCORAX FLAVIROSTRIS (Swains.). Black Gallinule.

Male. Iris crimson; bill dull dark green; tarsi and feet dull red. In their habits these birds much resemble the Jacanas, frequenting sedgy swamps and pools, walking with ease on the lilies and light weeds which grow on the surface of the water, in search of the softer snails, insects and seeds on which they subsist. On being disturbed, they run immediately amongst the rushes, from which it is then almost impossible to dislodge them. They do not fly with such ease as the Jacanas; their habits appear to be solitary.

The following notes contain additional information communicated by Mr. Ayres respecting some species included in my previous lists of Natal birds.

POLYBOROIDES RADIATUS (Scop.). Rayed Gymnogene.

Immature. Iris dark brown; cere deep pink; skin round the eye yellow. Stomach contained the remains of a land-crab, lizard, large spiders, beetles, and other insects.

CIRCAËTUS FASCIOLATUS (Gray). Banded Harrier-Eagle. (Pl. III.)

This is a very rare bird, frequenting the dense bush along the coast. [In the specimen of this bird sent by Mr. Ayres, and also in that preserved in the British Museum, the number of transverse bands on the tail is four; in the example previously noticed in 'The Ibis' (vol. iii. p. 130) the number is five, but the uppermost band is much less distinctly marked than the other four, and is placed so high up on the tail as to be hardly noticeable. The accompanying Plate (Pl. III.) is after a drawing taken by Mr. Wolf from this specimen, which, together with that sent by Mr. Ayres, forms part of the collection preserved in the Norwich Museum.—J. H. G.]

HELOTARSUS ECAUDATUS (Daud.). Short-tailed Bateleur.

The mature birds, on calm sunny days, when passing high overhead, occasionally make a sharp, quick, clapping noise, which appears to be done by the rapid motion of the wings beating the air: although far out of shot, a sudden shout or a stone thrown towards them will frequently cause them to make this curious noise.

I lately noticed two of these birds soaring at a great height, one of them having a snake 3 or 4 feet long dangling from its claws.

HALIAËTUS VOCIFER (Daud.). Vociferous Sea-Eagle.

This Eagle, when only wounded, makes a desperate resistance. Throwing himself on his back, he fights with both bill and talons, and woe to the unlucky wight who gets a gripe from the latter! The Crows, which congregate and drive the largest Vultures from the carcase of any dead beast, are unable to drive away this bold Eagle. He will also chase the Osprey, and having made him drop the fish he has worked so hard for, appropriate the morsel for his own use. In fact, Wilson's beautiful account of the American Bald Eagle forms a perfect description of our bird, with the exception of the difference in size, and the consequent lesser degree of power.

[The two Sea-Eagles here mentioned are not the only *Haliaëti* which persecute the Osprey, as on the coasts of Australia it is similarly robbed by *Haliaëtus leucogaster,* as I have been informed by that accurate Australian naturalist, the late Mr. F. Strange. According to Dr. Livingstone ('Missionary Travels,' page 240), the Pelican is also a sufferer by the freebooting propensities of *Haliaëtus vocifer.* Dr. Livingstone's remarks on this subject are very curious, and may be here transcribed with the hope of attracting the attention of other observers, and perhaps of obtaining their confirmation of the singular tactics which this Eagle is described by Dr. Livingstone as adopting for the purpose of purloining the Pelican's booty:—

"This fish-hawk generally kills more prey than it can devour. It eats a portion of the back of the fish, and leaves the rest for the Barotse, who often had a race across the river when they saw an abandoned morsel lying on the opposite sand-banks. The hawk is, however, not always so generous; for, as I myself was a witness on the Zouga, it sometimes plunders the purse of the pelican. Soaring overhead, and seeing this large, stupid bird fishing beneath, it watches till a fine fish is safe in the pelican's pouch; when descending, not very quickly, but with considerable noise of wing, the pelican looks up to see what is the matter, and, as the hawk comes near, he supposes that he is about to be killed, and roars out 'Murder!' The opening of his mouth enables the hawk to whisk the fish out of the pouch, upon which the pelican does not fly away, but commences fishing again; the fright having probably made him forget he ever had anything in his purse."—J. H. G.]

ATHENE WOODFORDI (Smith). Woodford's Owl.

Male. Iris dark brown; bill and cere light yellow; feet light yellow. This Owl frequents the bushy coast-land. The specimen sent was shot amongst a mass of creepers on the upper branches of a tree, hanging by its feet and defending itself as well as it could against a number of small birds which were annoying him. Of its habits I know nothing; stomach empty.

PLOCEUS OCULARIS (Smith). Black-lored Weaver-bird.

Female. Iris very light whitish brown. These birds frequent bush land, and are to be found singly or in pairs. The stomach of the specimen sent was crammed with a species of wood-bug; they are also fond of the berries of the wild date, from the ends of the leaves of which palm they frequently build their nest, composing it of strips of the leaf.

BUCORAX ABYSSINICUS (Gmel.). Abyssinian Hornbill.

Female. Weight 9 lbs.; contents of stomach, snakes, lizards, frogs, rats, mice, and a variety of locusts, beetles, and other insects.

DENDROMUS SMITHII (Malh.). *Picus* (*Chrysoptilopicus*) *smithii*, Malh. Rev. Zool. 1845, p. 403. Smith's Woodpecker.

Male and *female.* Iris light reddish brown; bill dark brown, under mandible with a yellowish tinge; tarsi and feet very dull green. These Woodpeckers are to be found throughout the colony, wherever there is bush land, singly or in pairs; their note is loud and harsh; they are very restless in their habits, constantly hunting for food, as if they never obtained a sufficiency;

ants and other insects appear to be their principal food, which they search for and catch on the rough bark of trees; they also hammer away at dead boughs, from which they extract soft grubs, &c. Their flight is heavy and dipping; they are here all the year round.

[Dr. Hartlaub, in his work on the 'Ornithology of Western Africa,' treats this species as synonymous with *Dendromus chrysurus* of Swainson, described in the 'Birds of Western Africa,' part 2, p. 158. In accordance with this view, I inserted this Woodpecker, under the specific name of "*chrysura*," in a former list of Natal Birds (*vide* 'Ibis,' vol. ii. p. 213). A subsequent examination of a female specimen from Natal leads me to believe that the two species are distinct. Mr. Swainson, in his description of *Dendromus chrysurus*, says that the female has "no white spots on the crown," and has "the belly and vent almost unspotted;" but the female of the Natal bird has the anterior two-thirds of the upper surface of the head black, with a single white spot on each feather, and also many dark spots on the feathers of the belly and vent. I therefore cannot doubt that "*chrysurus*" of Swainson and "*smithii*" of Malherbe must be considered as distinct species.—J. H. G.]

VANELLUS MELANOPTERUS (Rüpp.). Black-winged Lapwing.

On examination of several individuals, the irides of all were of a light greyish-yellow colour; the tarsi and feet, some dark pink, some purple, others nearly black, especially towards the feet, always lighter at the thighs.

PARRA AFRICANA (Gmel.). White-necked Jacana.

Male and *female*. Iris blackish brown; bill bluish black, pinkish at the tip, the frontal shield and skin at base of the upper mandible light slate-colour; shanks, tarsi and feet slate or ash colour, the feet being rather darker than the legs. The female is considerably larger than the male. They are to be found in considerable numbers in the lagoons and pools along the coast; their food appears to consist entirely of the seeds of water-plants and small insects, which they find amongst the leaves of the water-lilies and other weeds. Walking with ease on the floating leaves of these beautiful plants, they feed more or less throughout the day, and are active in their habits, apparently having constant feuds with each other, and chasing one another about on the wing. If disturbed, they always fly to cover, unless very close to it.

Thalassornis leuconotus (Smith). Fasciated Duck.

Male and *female*. Iris dark brown; bill black and slate-coloured, mottled; under mandible yellowish; tarsi and feet very dark brown. The males are rather larger than the females. They frequent the lagoons and marshes at the mouths of the Natal rivers, and appear to feed principally on the seeds of water-plants, which there abound. They are very expert divers, and although their wings are short and small, they fly swiftly and well, rising without difficulty from the water. If not too suddenly disturbed, they invariably dive to cover.

During the summer months they are gregarious, pairing off in the early winter. In August the young birds are to be seen, newly hatched, swimming actively about, escorted by their parents, the male bird taking equal care of the family (which generally consists of from four to eight) with the female.

VIII.—*Notice on the occurrence of the Red-necked Goatsucker* (Caprimulgus ruficollis) *in England*. By John Hancock.

So far back as the 6th of October, 1856, I obtained a fresh-killed specimen of this rare European Goatsucker of Mr. Pape, a game-dealer of this town. It had been shot the previous day at Killingworth, near Newcastle. I was unable to determine the sex from dissection, but I think it is most probably a male, as the first primaries have each a spot upon their inner webs, and the first two spots are white.

I have delayed until now making this announcement; for I found, on comparison, that the bird in question differed slightly from a Hungarian specimen in my collection, and I was consequently anxious to see others before doing so. I have now had an opportunity of referring to a specimen in the British Museum, and find that it quite agrees with my bird. I have therefore no longer any hesitation in stating that it is the true *C. ruficollis* of authors, and I have much pleasure in adding this fine species to the British list of occasional visitors; though I am far from believing that this is really its first occurrence in our island. It very closely resembles the *C. europæus*, and is almost sure to be confounded with that species by the casual observer.

Newcastle-on-Tyne, 12 Sept. 1861.

IX.—*Review of* Drs. BLASIUS'S *and* BALDAMUS'S *Continuation of Naumann's* 'Vögel Deutschlands.'*

IF a prophet has no honour in his own country, the rule is different as regards the naturalist. None of the sciences seem to have been so much tinged by local colouring as those which have to do with the Earth and its inhabitants. Geologists have even made it a subject of complaint that the progress of their study was actually hindered by the partial and partisan treatment it received from its early votaries. Accustomed as we in England are to reverence those who have laboured to elucidate the fauna and flora of these islands, we cannot be surprised that the same feelings should animate our Teutonic brethren.

Justly then is the name of NAUMANN dear to the German lovers of nature, for the two ornithologists who have borne it have collectively done more perhaps to add to the knowledge of their country's birds than all its other writers put together; though it cannot be denied that the reputation of the father, respectable as it was, would probably have by this time been shrouded in obscurity but for the lustre shed upon it by the labours of the son. The only British naturalist whose writings have placed him among his nation's classical authors—Gilbert White—has well said that "Every kingdom, every province, should possess its own monographer;" and to this honourable title in the department of German ornithology none have more right than the two authors of the 'Naturgeschichte der Vögel Deutschlands.'

The elder Naumann—Johann Andreas—born in 1744, commenced in 1795 the publication of a Natural History of the Birds of Germany; but though from 1805 assisted in his labours by his eldest son, Johann Friedrich—then five-and-twenty years of age—the work, from the disturbed state of central Europe in those days, was not completed until 1817. Not long after, in 1822, they began to bring out a second and improved edition, which, on the old man's death in 1826, was continued by his coadjutor, and finally concluded in 1844. So long as the German tongue is spoken, so long as among those that speak it any are found to admire and study one of the fairest classes of creation, so long will this work rank among the first histories of German birds. It consists of twelve volumes of text, illustrated by upwards of three hundred plates, most of them containing figures representing the various states of plumage arising from the difference of season, sex, or age; and though the figures are of small size, yet they are engraved and coloured with so much care, and in a manner so exact, as scarcely to leave anything to be desired. As Temminck long ago remarked of them, "ils sont des chefs-d'œuvre de vérité." The letter-press also merits equal praise. The descriptions are given fully and with precision. It has even been objected to them that the details they offer are too minute. At the same time, so forcible and expressive is the style employed, that, having but a slight knowledge of the language in which it is written, one can easily refer to the work with equal profit and pleasure. The advanced student and the unscientific learner are alike capable of fully comprehending the accurate and simple relation of facts; for Naumann, like all men of real genius, had the faculty of stating his meaning clearly, and throughout this great undertaking, though popularly written in the best sense of the expression, he never stoops from the exalted throne of truth to suit the convenience of ignorance, but rather raises ignorance by easy steps to his own high level.

---

* *J. A. Naumann's* Naturgeschichte der Vögel Deutschlands. *Fortsetzung der Nachträge, Zusätze und Verbesserungen* von Dr. J. H. BLASIUS, Dr. ED. BALDAMUS, und Dr. FR. STURM. Dreizehnter Theil. 8 Lieferung. Schluss des ganzen Werkes. Stuttgart: 1860.

Now, as we believe that neither the more lengthened reviews nor the shorter critical notices which have appeared in this Journal are open to the charge of fulsome adulation, we trust that the remarks we have just made may be also received as expressions of honest appreciation. We are far from saying that even Naumann's labours attain perfection, but we do think that the very short-comings of such a *magnum opus* demand no common treatment; and if it be true that none should be the censor of a book who does not feel himself its author's equal, it is assuredly not for us to throw the first stone.

To proceed, however, to the subject immediately before us. The twelve volumes of the second edition of the 'Naturgeschichte der Vögel Deutschlands,' as we have said, were completed in 1844; but Naumann did not feel his task was finished. He at once set about a Supplement, of which the first part was published in 1847; and in the succeeding ten years six other portions appeared, ere the hand of death was laid upon their author*.

The naturalists who have charged themselves with the completion of this Supplement are well known by report to most of our readers. Professor BLASIUS, already in 1840 the joint author with Count Keyserling of a handy volume on European Vertebrates, published in 1844 an account of his travels in Northern Russia. Besides this, by sundry contributions to various periodicals† he has shown himself to be eminently fitted for the task, and he is now preparing a second volume of his 'Naturgeschichte der Wirbelthiere Deutschlands,' containing the Birds, to the appearance of which we look forward with the highest interest. Dr. BALDAMUS, formerly the conductor of the now defunct 'Naumannia'—a magazine which ought to be on the book-shelves of every ornithologist—and at present co-editor with Dr. Cabanis of the equally meritorious 'Journal für Ornithologie,' has in the same manner proved himself a tried soldier of the good cause. He too has served several oological campaigns in the countries bordering on the German Fatherland, of which that of Hungary in 1847 was certainly not wanting in great results, and, as Secretary of the German Ornithological Society, has greatly contributed to its prosperity by his well-deserved popularity and assiduous attention. The name of Dr. STURM is less known to us, except as the reproducer of Mr. Gould's monograph of the Toucans, but to him we are indebted for many of the illustrations which embellish this book; and these, if not most artistic, are at least eminently characteristic of the subjects they depict, and are also successful imitations of the style of engraving in which the younger Naumann was so great a proficient.

---

* The number of distinguished ornithologists of different countries who descended to their graves, full of years as full of honours, within a short space of time from J. F. NAUMANN'S death (15 Aug., 1857) is not a little remarkable. W. YARRELL, 1 Sept., 1856; C. L. BONAPARTE, 30 July, 1857; C. L. KOCH, 23 Aug., 1857; M. H. C. LICHTENSTEIN, 2 Sept., 1857; C. J. TEMMINCK, 30 Jan., 1858; F. A. L. THIENEMANN, 24 June, 1858.

† Among these fugitive pieces we would especially direct attention to his able paper "On the Diversity in the Estimate of the European *Ornis*, &c.," of which a translation appeared in this Journal for July last (Ibis, 1861, p. 292).

By a happy division of labour, the authors of the work we are noticing have each contrived to exhibit the results of their experience and learning without in the least interfering with one another. Professor Blasius has confined himself to the synonymy and the critical and diagnostic descriptions of the species—how successfully, those who are acquainted with his other writings will not require to be told. On the other hand, to Dr. Baldamus are owing those parts of the volume which treat of the geographical range and propagation, and the general observations on the habits—all of which subjects are, it is almost needless to say, handled with equal ability.

We have said that we consider Naumann himself to have been occasionally in error, and it is not to be supposed that we mean to give our unfeigned assent and consent to all the articles of faith prescribed for us by his successors. Erudite ornithologists as they are, in a few matters we hold them clearly in the wrong; and we shall here take the opportunity of noticing at some length a single instance of this kind, especially as it is one which has perhaps provoked more discussion than any other connected with the European Avi-fauna. For although to us, indeed, the solution seems simple enough, this has certainly not been generally recognized to be the case. It is the question of the Great Northern Falcons. We do not pretend to announce any new facts bearing on the matters at issue, but it seems to us that those already on record have not been thoroughly comprehended by many who have given their opinion on the subject *. We shall endeavour to adduce proper authority for our reasons, and while leaving the conclusion to our readers, strive to be as concise as possible in our statements †.

In Gmelin's edition (1788) of Linnæus's celebrated 'Systema Naturæ,' the three races of large Northern Falcons are defined as accurately as many other birds about which no doubt has ever arisen. Two of them are regarded as specifically distinct; the third is considered a variety of the second. They stand thus under the genus *Falco*:—

"GYRFALCO. 27. *F.* cera cærulea, pedibus luteis, corpore fusco, subtus fasciis cinereis, caudæ lateribus albis. Fn. Suec. 64.
. . . . ‡
Habitat in Europa, *gruibus, ardeis, columbis infestus. Variat pedibus cæruleis et flavis.*

" CANDICANS. 101. *F.* cera pedibusque ex cærulescente cinereis, corpore albo fusco-maculato.
. . . . ‡

" ISLANDICUS. β. . . . . ‡
Habitat in Islandia *et* Scotia boreali, *palumbarii magnitudine*; rostrum *ex cæruleo-cinereum, apice nigricans*; ungues *plumbei*; irides *et* orbitæ *cæruleæ* (β. irides *luteæ*). β. Corpus *supra fuscum, dorsi et alarum maculis albis, subtus album nigro maculatum.* Pedes *flavi.*"—Gmel. *Syst. Nat.* I. i. p. 275.

Since Gmelin's time, so much has the subject been confused, that though the names he, as just quoted, gave to these birds are theoretically entitled to priority §, he cannot be regarded as their practical describer. Still less, as it seems to us, have any other old writers such claims; and of modern authors it appears to have been Pastor Brehm who, in 1823 ('Lehrbuch,' pp. 43–

---

* See the report of the animated debate on the subject which took place at Brunswick, 5 June, 1855 ('Naumannia,' v. 227).

† Our remarks will be found to be an amplification of those made in the text to plates 34 and 35 of Wolf and Sclater's 'Zoological Sketches.'

‡ The references not Linnean are purposely omitted here, that the matter may appear less complicated.

§ Unless indeed it can be accurately ascertained what Fabricius, in 1780, ('Fauna Grœnlandica,' pp. 55–58) meant by his *Falco rusticolus, F. fuscus,* and *F. islandus.*

47), first decidedly distinguished between the two Falcons, which are since presumed to have their respective homes *mainly* in Greenland and Iceland. In 1838 Mr. John Hancock brought the matter before the British Association at their meeting at Newcastle-upon-Tyne; but in the paper which he then read ('Ann. Nat. Hist.' ii. pp. 241 *et seqq.*, and 'Naturalist,' iv. pp. 38, 39), that gentleman was led, as Brehm before him had been, into the error of confounding the adult of the Greenland bird with the young, and of describing this latter as brown, like the immature Iceland. It was not until 1854 that he was enabled to set this misconception right; but in the early part of that year he announced (Ann. & Mag. Nat. Hist. 2nd ser. xiii. pp. 110–112) that *the Greenland form was never in any state dark-, but invariably light-coloured from its youth.* This opinion was grounded upon repeated observations of living birds in his own possession, as well as in that of the Zoological Society, backed by the inspection of upwards of one hundred and fifty specimens [*], and the careful comparison of no less than seventy individuals. Mr. Hancock's latter paper seems to have been somewhat overlooked by ornithologists, and hence the confusion which previously existed has never been entirely dispelled. But we think there can be little doubt of the correctness of his present views, which, it may be added, are strictly in accordance with the traditions of falconers; and to him, therefore, belongs the credit of first laying the exact state of the case clearly before the public [†].

It is to be observed that the Greenland and Iceland Falcons, like the Peregrine, and nearly all the rest of the group [‡], assume the plumage of maturity at the *first* moult, which usually takes place when the birds are from nine to fifteen months old, and, as in them, the feathers of the young are characterized by *longitudinal* markings, while those of the adult differ in having the markings disposed *transversely*. The style of change thus undergone may be readily perceived by any one who will take the trouble to procure a nestling Peregrine Falcon, and keep it alive for a year or a year and a half. After this *one* change, there is no good reason for supposing that the colours of the plumage materially alter at any succeeding moult. Of course, as in all birds, the feathers with time become somewhat bleached or rusty; but in the autumn of every year these are thrown off, and fresh ones take their place, the same in colour and markings as those originally assumed by the bird at its *first* moult *.

---

[*] It is only fair to Professor Blasius to mention that he states that he has inspected the same or even a larger number of skins ('Naumannia,' 1857, p. 224), but he says nothing about live birds; and we believe Mr. Hancock has since seen many more.

[†] We have been informed that Professor Schlegel, than whom there cannot be a higher authority on this subject, has lately expressed his opinion that Mr. Hancock, in the view he takes, is perfectly right.

[‡] The most noticeable exceptions apparently are *Falco sacer,* Gmelin, and probably one or two other allied species; but in these the plumage of both young and old would seem to be nearly alike. See F. H. Salvin and Brodrick's 'Falconry in the British Isles,' pp. 96 *et seqq.*

These considerations being borne in mind, it is always easy to determine, not only whether any given specimen is immature or adult, but also to which of the two forms it may belong. As has just been said, in the young of both birds, the general character of the markings is that of streaks running *along* the shaft of the feather, while in the old ones they are as invariably found to be running *across* the shaft. This is all that is absolutely necessary to distinguish between them, though other equally unmistakeable signs may be observed if looked for. One of these, however—the colour of the cere, legs, and feet, which in the young are bluish or lead-colour, but in the old birds are tinged with yellow—is not always to be trusted in living examples which have been kept long in captivity; for confinement, and perhaps the want of perfectly fresh food, seems often to interfere with the natural development of colour in those parts. To distinguish between the two forms can scarcely be said to be more difficult. In the first place, the bills and claws of the Greenland bird seem to be in life always white, or nearly so, while in the Icelander the same parts are more or less dusky horn-colour. It occasionally happens however that, on a cursory inspection of dried specimens of the Greenland race, these organs present a somewhat dark appearance, but this will be found on closer inspection to be merely the effect of extravasated blood. Another character is, that though there is very considerable variation between individual birds of either form, it will always be found that in the Greenland Falcon, the white is as it were the ground-colour of each feather on which the dark marking is displayed, whereas in the Icelander the ground is dark with a light marking thereon. In other words, in the Greenland bird at all ages the prevailing hue is white, while in the Icelander it is dark—being brown or grey, according as the specimen is young or old.

---

* We have said above that Mr. Hancock's opinions are in part founded on repeated observations of living birds in the Zoological Gardens. One of these examples in its mature stage is beautifully figured by Mr. Wolf in the 'Zoological Sketches' (plate 34). When originally brought to the Regent's Park it was said to have been taken in Greenland that year, and its plumage was characterized by longitudinal markings, which, after the first moult, changed into the transverse ones depicted in the drawing. That a change of similar character takes place in the Icelander, Mr. Hancock, Mr. Newcome, and other gentlemen who have kept them in confinement, have had many opportunities of observing.

The variation between individuals, to which we have just alluded, has no doubt been the primary cause of the confusion which has existed on the subject of these birds. But Mr. Hancock has shown that to distinguish between them is always a matter of simple observation; and it may be added that, in practice, it is believed the separation will be found more easy than would appear. The differences are indeed often very great, for out of some twenty or thirty examples, perhaps not more than three or four may be found exactly alike; but the extent of this variation is by no means unlimited; and we believe that Mr. Hancock, and some other naturalists who partake of his opinions, declare that they can unfailingly determine between the two birds. They say that a Greenland Falcon of the darkest complexion is yet whiter than the lightest Icelander; and even in the absence of a series of specimens for comparison, it is asserted that the colour of the bill will be always a sufficient test *.

---

* As if still further to complicate the matter, examples of the Iceland Falcon are occasionally found showing a tendency to albinism, having perhaps two or three feathers on one side nearly pure white, while the corresponding ones on the other side are the same as the rest of the body. But at other times the pied markings are more regularly disposed, and we believe it was a specimen of this description which led Mr. Hancock into the error, afterwards corrected in his second paper, as before mentioned.

In modern times the claims to distinction of the third race—that of Norway, which is clearly the bird referred to as *Falco gyrfalco* by Linnæus and Gmelin, in the quotations we have cited, and to which alone the English name Gyrfalcon of right belongs—seem to have been first brought forward by the late Mr. Hoy. That gentleman, in 1833, published a paper on the subject, which has hardly obtained from naturalists the attention it deserves; for though the question has since been treated at great length by other highly distinguished authors, his remarks, in our opinion, are as a whole most judicious, and characterized by remarkable perspicuity. We hope we may be excused for here reproducing an extract from them, but we must refer those who are really interested in the matter to the original article[*]. Mr. Hoy ('Loudon's Mag. Nat. Hist.' vi. p. 108) writes as follows:—

"The Iceland falcon rather exceeds the Gerfalcon of Norway in size; the tail is considerably shorter; the wings are, in proportion, longer, the relative length of the wing and tail being much the same as in the Peregrine falcon: the young of both species are much alike in their first plumage, but the Icelander is generally of a lighter cast; * * * The head of the Icelander is larger, different blocks being used in making the hoods of the two kinds. The Gerfalcon, the male of which, in falconry, is called the Gerkin, differs in being less; in having a longer[†] tail, and shorter wing, in proportion, the wings, when closed, reaching but little more than half the length of the tail; the plumage does not become so white as in the Icelander."

This bird, the true Gyrfalcon, which in the times of our ancestors was so commonly employed to capture the Crane, the Wild Goose, and the Bustard, has of late years been very rarely brought alive to this country; but in the palmy days of the Loo Hawking Club several examples were at different times retained by its members, and from these we believe Mr. Hoy's as well as

---

[*] We must, however, caution our readers that Mr. Hoy was of the opinion which, prior to Mr. Hancock's discovery, almost entirely prevailed, that the large Falcon of Norway, like the Icelander, grew white by age.

[†] By a clerical error in a former article ('Ibis,' 1859, p. 85) a "short tail" is spoken of as being a characteristic of the Gyrfalcon. We should have said exactly the contrary.

Professor Schlegel's better-known descriptions were drawn up. With all due deference to this last-named gentleman (the Arch-Falconer, as Prince Bonaparte dubbed him), we consider that in his various works he has not been so successful in his diagnosis of this race as our countryman, whose words we have above quoted. But we are bound to say that we have not been able to satisfy ourselves that some of the differences indicated by Mr. Hoy, especially those taken from the relative proportions of the Gyrfalcon and the Icelander, are constant; and if they be not constant, of course the sooner they are eliminated from the list of characteristic distinctions the better. As far as we have observed, the most noticeable differences are only of shade. The Norwegian birds are more darkly coloured than the Icelandic; and in the former, however light may be the prevailing hue of the other parts, there is generally a deeply black mystacial or, rather, malar patch sometimes extended upwards over the temples to the top of the head, which we do not remember ever to have seen in a true native either of Iceland, Greenland, or Labrador.

Not many generations ago, sailors always believed that treaties signified nothing within twenty degrees of the equator. Naturalists have hardly left off acting on the principle that localities may be safely disregarded within the same distance of the Arctic Circle. Hence can be traced an abundant crop of errors relating to the geographical range of northern birds; and when, as in the present case, the races under consideration have been very commonly confounded with one another, it is an especially difficult task to unravel the tangled web, and to state plainly what may be taken as known of their respective distribution.

The Greenland Falcon seems to have its proper home in the inhospitable regions which enclose Baffin's Bay and extend to the westward. From this tract adult birds seldom wander to other lands, though the young ones in autumn and winter—but only at those seasons—occur regularly in Iceland, and not unfrequently in the United States, the British Islands, and even in countries still more remote from the place of their birth. They are, no doubt, driven away by their parents, as is commonly the habit of Birds of prey, and follow the large flocks of water-fowl, which are bred in the north, on their southward migration, though it would appear that the Ptarmigan forms the chief sustenance of the old birds. At the same time it must not be supposed that in Greenland the white race only is found—but of this more presently; and, on the other hand, there is reason to believe that the Greenland Falcon may also breed in some of the northern parts of the fur-countries. The nest spoken of by Sir John Richardson as seen by him at Point Lake (lat. 65° 30′ N., long. 113° W.), the birds of which "bore considerable resemblance to the Snowy Owl" (Fauna Bor.-Am. ii. p. 28), probably belonged to this form. But whether its character in Siberia is that of native or a visitor only, is not so easy to say with the amount of evidence before us. A specimen obtained by Pallas is still preserved in the Museum at Berlin; but, according to the views here adopted, it is a bird of the year only; and that being the case, the question of its origin is left as entirely undetermined as with examples of similar age which appear in our own islands. Von Middendorff says that the large Falcons observed by him even as high as 75° 30′ N. were always in dark plumage (Sib. Reise, ii. 2. p. 127): but the single specimen from the Amoor river, described by von Schrenck (Reisen und Forschungen, i. p. 228), seems to have belonged to the Greenland race; and though we cannot entirely comprehend from the account given whether it was an adult or an immature bird, we incline to the belief that it was the latter.

We have said that the Greenland Falcon is not the only race which is to be found in that country. Among the birds received thence (we may mention those, for instance, sent at different times by the late Governor Holböll*) there have been many which can scarcely be distinguished from examples known to be Icelanders, and these are in adult as well as immature plumage. It may therefore be fairly taken for granted that the Iceland Falcon breeds in at least some part or parts of Greenland, and, according to Mr. Audubon (Orn. Biogr. ii. p. 552), also in Labrador, though the birds figured by him (B. Am. pl. 196)*, as having been shot from their nest, are obviously young, and not old ones as he and his party imagined. Yet it cannot be disputed that its head-quarters are in Iceland; and probably from that country most of the examples killed from time to time in more southern latitudes originated. Though the falconers of the "Royal Dane" no longer make their annual pilgrimage to Bessestad, there to receive, from the persons duly appointed to take them from the nests, the eyasses, on which so high a price was set, yet the various public and private collections throughout

---

* We do not know whether this unfortunate gentleman ever published a description of what, judging from the tickets appended to the specimens dispersed through his means, he so long ago at least as 1854 termed *Falco arcticus*. It is therefore only with hesitation that we state our belief that he considered the birds marked with transverse bars—*i. e.* the adults of both forms, which we have here spoken of as the Greenland and Iceland Falcons—to constitute one species, to which he applied the name *F. arcticus*; and the birds with longitudinal streaks—*i. e.* the immature of the same—to form another, which he deemed to be *F. islandicus*. If our supposition be correct, it exhibits another phase of this curiously confused question;

---

but the ingenuity of Holböll's notion, erroneous as it seems to us, must be fully allowed. Letting alone its prior use by Gmelin in another sense (Syst. Nat. i. p. 271), the earliest publication of the name *Falco arcticus* we have been able to find is in 'Naumannia' for 1857 (p. 231), by Prof. Blasius, who mentions it as having been communicated to him orally or in a letter by Holböll, and the interpretation ascribed to it there is substantially the same as we have given above.

* These are named in the plate "*Falco labradora.*" It is worthy of remark, that many of the examples obtained from Labrador are very darkly coloured, but, as far as our own knowledge of them goes, they have always been birds of the year. We have seen in some continental museum—we forget where—a specimen from that country of a deep and almost uniform brown, so as strongly to resemble the rare Australian *Falco subniger* of Mr. G. R. Gray (Ann. N. H. xi. p. 371; Gould, B. Austral. i. pl. 9). The so-called *Falco sacer* of Forster (Phil. Trans. 1772, lxii. pp. 383 & 423), of which Sir John Richardson copies the description (Fauna Bor.-Amer. ii. p. 30), we are at a loss to refer to any known bird. It is stated to have had its head and whole under surface white with longitudinal brown marks, its upper parts dark brown, and its *irides yellow*; this last being a character especially dwelt on by the author, and not existing in any species or race of true *Falco*, as now restricted, known to us. Mr. Cassin in 1856 (B. Calif. p. 89) and Dr. Brewer (N. Am. Ool. part i. p. 11) apply this specific name to the large Falcons of the New World collectively; but the former gentleman seems since to have altered his opinion, as in 1858 (Rep. Pac. R. R. ix. p. 13) he omits that designation, and speaks of *Falco candicans* and *F. islandicus* by these appellations as North American species.

the world have created a demand for their skins as insatiable as that of old was for the living birds.

The Gyrfalcon, so far as we know at present, has only been ascertained to breed along the chain of mountains which separates Sweden from Norway *. Towards the end of summer the young birds would appear, like some of their transatlantic representatives, to exhibit " southern proclivities," and, according to Professor Schlegel, they have, in winter, been taken in Germany and Holland. What may be the eastern limits of the area occupied by this form (which it must be confessed differs so slightly from the Icelander) we have no means of determining. The dark examples seen by von Middendorff, to which allusion has been made, were most likely, however, young birds of this race; and we should imagine there must be some district in Siberia where both it and the Greenland form occur, just as the Greenland and Iceland birds jointly occupy the land north of Cape Farewell.

We forbear protracting this article by adding apologies for the introduction of this long dissertation. We have only to show that it is not altogether inexcusable on our part. This is best done by referring to Dr. Sturm's two plates, which complete the work. In the first (taf. 390), according to our views, each of the birds represented is wrongly designated. The lower figure is called an *old* male of "*Falco candicans*," while we feel convinced that it is a sufficiently accurate representation of the *young of the year* of the Greenland form; and the upper figure, considered by the authors to be a *young* female of "*Falco arcticus*," is, we are equally certain, that of a fine *old* Icelander. If there be any truth in the diagnosis we have above given, our readers can easily make out the distinguishing characters for themselves. The longitudinal streaks in the bottom figure, to our mind, clearly indicate the youth of the original, while the transverse barring of the top figure as plainly shows its maturity. With the second plate (taf. 391) we have no fault to find; we can only regret it was not in the artist's power to have given an original figure of the adult male Gyrfalcon which, together with an immature bird of the same form, is there represented.

---

* Herr Wallengren puts the southern limit of its breeding-zone at 63° N. for Sweden, and 60° for Norway (Naumannia, 1855, p. 129).

So much then for the question of the Great Northern Falcons. We have carefully avoided the use of the word "species" in treating of these forms or races, the characters of two of which are truly enough stated by Mr. Hancock to be "permanent and sharply defined, never blending into each other," while those of the third, though much less marked, and accordingly less easily distinguished, are, we are told by Professor Schlegel, always recognizable. Whatever theories we may hold as to the existence of species in nature, and as to what constitutes them, in practice it must, for the present, we imagine, be left for naturalists to receive or reject them according to their own private judgment. But at the same time, where constant differences, however small, can be observed between particular groups of organic forms, we maintain that these constant differences are worthy of observation, however variable be the value assigned to them as specific characteristics. Accordingly we consider that those who neglect to observe them are rather impeding than advancing the progress of natural history, and are not fulfilling the duties which belong to them as natural philosophers. This last, be it remembered, is really a matter of no small importance, since the popular estimate of a science like natural history, whose results are comparatively barren in utilitarian application, is always proportionate to the opinion formed of its students' abilities. To guard, however, against misapprehension, we must say that this charge cannot be laid to the authors of the volume under review. They, in nearly all cases, show their readiness to give due consideration to such differences as we have spoken of, though, as in the instance which has provoked these lengthy remarks, we believe them to be mistaken in the views they have adopted.

There is but one other point on which we will detain our readers, and that also is of importance with reference to a rare and interesting European species, the synonymy of which Dr. Cabanis has the credit of first reducing to order (Journ. f. Orn. 1853, pp. 81–96). To his paper, and to the account given in the work we are noticing (pp. 74–77), we would refer those ornithologists who are anxious to become acquainted with the whole story. Here we will but glance at its principal features. About 1837 Mr. Gould (Birds of Europe, pt. xii. pl. 149) gave, from a single example procured in Dalmatia in 1829 by the Baron von Feldegg, a description and figure of what appeared to him to be a new species of *Regulus*, under the name of *Regulus modestus*. In 1838 Mr. John Hancock (Ann. N. H. ii. p. 310) identified a bird shot by himself on the Northumberland coast with Mr. Gould's figure, and in 1840 Temminck included it in his work as a European species (Man. d'Orn. iv. App. p. 618). But in the year last mentioned Count A. von Keyserling and Prof. Blasius (Wirbelth. Eur. p. 55) showed that Mr. Gould's *Regulus modestus* had been previously described by Pallas (Zoogr. Ross.-Asiat. i. p. 499) as *Motacilla proregulus*, and of course made use of this last specific term. In 1843 Mr. Yarrell included the species, from Mr. Gould's determination, in a supplementary leaf to his well-known work (B. B. i. p. 316), and it has therefore taken its place in nearly all the lists of English birds since published. Meanwhile, in 1842, Mr. Blyth had announced the existence of a species apparently undescribed, and procured by him in the neighbourhood of Calcutta, as *Regulus inornatus* (Journ. Asiat. Soc. Bengal, xi. p. 191), which species he subsequently found to be only Mr. Gould's *R. modestus* in abraded plumage, and next year (Ann. Nat. Hist. xii. p. 98) so referred it. Soon after, the same gentleman sent home some specimens of the bird to the British Museum (Ann. Nat. Hist. xiii. p. 179); and about the same time it was discovered that the bird was no true *Regulus* (as indeed somebody had suggested when Mr. Gould's description first appeared), but rather belonged to the group of Willow Wrens, to which, under whatever term it pleased naturalists to distinguish them, —whether *Sylvia* proper, *Phyllopneuste*, or *Phylloscopus*—it was in consequence relegated. On consideration, however, this assignment appeared distasteful to the discrimination of Mr. Blyth, who in 1847 (Journ. Asiat. Soc. Bengal, xvi. p. 441) erected for its reception a genus *Reguloides*, where Prince Bonaparte in 1850 (Consp. Av. i. p. 291) was content to leave it. But before this it was destined to have a new designation conferred upon it, for in 1844 Mr. Hodgson (Gray's Zool. Misc. p. 82) had again described it as new under another specific name, *Phyllopneuste reguloides* *. To continue the bibliography of the species,

---

* Not to be confounded, however, with Mr. Blyth's *Phylloscopus regu-*

Dr. Cabanis, in 1851, exhibited to the meeting of German ornithologists held at Berlin a pair, the female of which had been taken by a bird-catcher near that capital; he also stated (Naumannia, 1852, pt. i. p. 5) that three examples had been killed in Heligoland, and that two others obtained in Dalmatia were then at Vienna. The same talented ornithologist about the same time devised a new genus, *Phyllobasileus*, for its reception, and subsequently, in 1853, published (Journ. f. Orn. i. p. 81) the admirable paper to which reference has already been made. Herein the history of the species is ably summed up, and two characteristic figures by Naumann himself are appended; but, better still, the author identifies it with the "Yellow-browed Warbler" of Latham (Synopsis, ii. 2. p. 459), which that learned writer described so long ago as 1783, from an example furnished to him by the illustrious Pennant. This description had served as the foundation of Gmelin's *Motacilla superciliosa* in 1786 (Syst. Nat. i. pt. 2. p. 975); and thus we arrive at what must be considered in future as its rightful specific appellation, as well as an older English name, the latter fortunately more applicable to it than that applied by Mr. Gould some fifty years later. About the same time as Dr. Cabanis' paper (namely in 1853) appeared the ornithological portion of the results of Dr. von Middendorff's travels, wherein (Sibir. Reise, ii. pt. 2. p. 183) this bird is included as *Sylvia proregulus*; and the variations occasioned by sex, age, or other causes, in no less than thirteen examples obtained on the shores of the Sea of Ochotsk, are duly commented on. The following year (1854) Mr. F. Moore (Cat. B. Mus. H. E. I. C. p. 343) claimed for the species another synonym, namely *Phyllopneuste nitidus* of Mr. Blyth in 1842 (J. A. S. B. xii. pt. 2. p. 965). In 1857 the anonymous author—if indeed he may be so regarded, when east of the Red Sea there is but a single pen that could have written the article—of "British Birds in India" in the 'Calcutta Review' (no. 55. p. 174) states that this bird, under the appellation of *Reguloides proregulus*, is, with several other allied species, common in Bengal. In 1858 Mr.

loides (J. A. S. B. xi. p. 291), which that gentleman states (Ann. N. H. xx. p. 384) is a species identical with Professor Sundevall's previously described *Acanthiza trochiloides* (Ann. N. H. xviii. p. 252).

Gätke described at length (Naumannia, 1858, p. 419) his marvellous success in picking up chance wanderers to that refuge for birds destitute of a home, the island of Heligoland, and recording the occurrence there of some eight specimens of the Yellow-browed Warbler, adds yet another name to the species; but the stern laws of priority forbid our doing more than quoting as a synonym his description of *Sylvia bifasciata*. As might have been expected from von Middendorff's experience, later observers in North-eastern Asia have again met with it in that region; and Herr Maack is stated (von Schrenck, Reisen und Forschungen, i. p. 364) to have killed it on the Upper Amoor, the district by which the boundaries of the Russian empire have been recently "rectified." Then comes its treatment by the authors of the work we are reviewing (pp. 74–77); and finally we may refer to our last Number, where Mr. Swinhoe states that he found it "very common among the trees near Tungchow, in September" ('Ibis,' 1861, p. 330).

We have no wish to cap with a moral the tower of confusion we have shown to have been thus built up. That the Yellow-browed Warbler is not a race favoured by naturalists, whatever it may have been by nature, is certain. It has maintained a successful struggle for existence only to undergo a struggle as severe to get that existence duly recognized, and has been encumbered with nearly as many names as a Spanish Infante. May happier times await this poor little bird! At present we do not know much of what, in the language of the day, is called its "life-history." It has occurred once in England, nearly a dozen times in Heligoland, once or twice near Berlin, and about as often in Dalmatia. All these occurrences seem to have been at the time of the autumnal migration. In Siberia, according to Pallas, it has been met with on the Ingoda, and perhaps on the Lena; but as no particular locality is specified, and the latter river happens to be one of the largest in the world—only about ten times as long as the Thames!—the information is not very precise. Its abundance still further to the eastward has been noticed; and in Hindostan, as we have seen, Mr. Blyth speaks of it as common enough, though chiefly so, we believe, in winter time about Calcutta. Still that gentleman mentions its breeding in that vicinity, and his having obtained, without eggs it is true, a supposed nest. This was a domed structure, but, unlike those built by most *Phyllopneustæ*, not placed on the ground. He also states that its song is somewhat like that of our Wood Wren, but is much weaker in tone. And here we part company for the present with our small friend, trusting we have done somewhat towards restoring him to his long-neglected honours.

There is one other topic upon which we cannot refrain from saying a few words before we dismiss the work we have been reviewing. It is well known that naturalists, whatever be their particular lines of study, are, as a rule, to be divided into two schools. Our entomological and botanical brethren, to whom the characteristics of either party have been more especially brought home, have, if we are not mistaken, recognized these two sects in common parlance as the "*splitters*" and the "*lumpers*"—those who erect every trifling difference into a specific distinction, and those who refuse to acknowledge that these differences possess any scientific value. This last body we have thought it right, a few lines above, to condemn. It remains to be said that the authors of the continuation of Naumann's great undertaking are not adherents of the former. They exhibit, on the contrary, a most remarkable and praiseworthy exception to the bigotry of both parties. Dr. Blasius, as may be gathered from the expression of his opinions recorded in the article which appeared in one of our former numbers, has very strong convictions on this point, but he has given utterance to them in a temperate manner, and one worthy of a deep-thinking philosopher. Dr. Baldamus, to whose share in the work before us we feel that in this notice we have hardly done sufficient justice, appears fully to coincide with the views of his colleague. Together they have produced a volume of the highest use to the student of the European Fauna, and have set an example to the naturalists of other countries which well merits imitation. In England much aversion has hitherto been popularly entertained towards the writings of German ornithologists; chiefly, we believe, excited by the notion that they all resembled those of a well-known leader of the "*splitters.*" A more just appreciation, we trust, will soon succeed; and if so, German naturalists will owe not a small debt of gratitude to Dr. Blasius and Dr. Baldamus.

November 1861.

X.—*An Ornithological Letter on Heligoland.*

By Prof. Dr. J. H. Blasius *.

To the Editor of 'Naumannia.'

Brunswick, September 1858.

You want me to give you an account of my summer excursions . . . very well! To begin with Heligoland. It is a long time since I have seen so interesting a collection for European ornithology as that belonging to Mr. H. Gaetke, a painter, and secretary of the government of Heligoland. The contributions of Naumann in the 'Rhea,' and of Gaetke in Cabanis' 'Journal,' were calculated not only to attract the attention of ornithologists towards this isolated and rocky island, but to raise the curiosity of the ornithological world to a high degree. Independently, however, of a previous somewhat animated dispute on the moulting and colouring of birds, the assertions of Gaetke, although founded on fact, had been not only seriously questioned, but doubted altogether. Von Homeyer, in Cabanis' 'Journal' (1857, p. 143), amongst other matters observes,—"When the collector has no interest in deception, there is no reason to distrust his motives; but this is not so with regard to birds continually imported, especially from Heligoland, and proclaimed as novelties or great curiosities for the European fauna. If serious consideration is expected in these cases, positive statements are requisite. The Heligolanders, owing to their frequent intercourse with foreigners, no longer possess their primitive purity of morals. They know very well that a bird killed on their island has, comparatively to one of the same species imported from abroad, a greater value; and here lies the temptation for enhancing ten- or twenty-fold the price of a specimen by false reports. It would be, therefore, most interesting to science that the ornithology of Heligoland should remain no longer closed to ornithologists."

---

* Translated from 'Naumannia' for 1858. We have long wished to give an English translation of this very interesting paper of Dr. Blasius, but have been hitherto prevented from want of space. As relating to the extraordinary features presented by the Avifauna of one of our own possessions, and as containing the first discrimination of a new European species of Warbler, it is of great importance.—Ed.

It must be admitted that von Homeyer knew very well the import of his assertions. In his obscure phraseology he does not, it is true, cite any name, but in the whole article he evidently refers to the statements and opinions of Gaetke. Moreover, it is well known that of late years Gaetke is the only person in the island who has occupied himself with the science of ornithology. There is, therefore, not the slightest doubt as to whom these hints and insinuations are covertly addressed.

Gaetke declares that he found in the month of February five *Larus minutus* moulting into their white plumage; he asks whether v. Homeyer, whose views are opposed to his, has seen these birds; and observes that specimens obtained through the trade cannot be relied upon. To this v. Homeyer answers by hints and suspicions as to the questionable morality of the Heligolanders.

Thus stood ornithological matters in Heligoland in the past year. Many statements as to what had occurred in Heligoland had been made, much had been quasi-foretold by Gaetke. "You see," says Gaetke again in Cabanis' 'Journal' (1856, p. 378), "the materials of our European ornis are endless." But, according to v. Homeyer's assertions, it seems that this new and rich mine is nothing more than a swindle based on trickery of trade. And truly, if the assertions of v. Homeyer could have been believed, the question of ornithology in Heligoland must have entered upon a crisis from which no escape would have been possible.

But on whom was reliance to be placed? Gaetke spoke evidently from experience, being on the spot; and from the manner in which he spoke, there was no ground for supposing intentional fraud. Wherever he was not quite certain as to the species he made short notes, evidently founded on minute observation, and never ventured to employ a specific name. Moreover, whatever may be the personal inclination of any person to think about another, as long as there is no positive evidence to show the contrary, he ought to be considered as an honest man in private as well as in literary or in public life. V. Homeyer proclaims his distrust only in the vaguest and most unsatisfactory manner—merely as a supposition, as a possibility or probability, without taking the slightest trouble to cite one single incontestable fact founded on his own observation and knowledge. In reading his article one sees that he is not personally acquainted with Heligoland. He concludes: "It would be most interesting to science that the ornithology of Heligoland should remain no longer closed to ornithologists." Hitherto then we have been in the dark! and therefore it must be difficult to pronounce *à priori* either in a positive or negative sense on the question.

But how is the ornithology of Heligoland to be disclosed to ornithologists? *How*? when the ornithological observers in Heligoland are declared open to suspicion and stigmatized as scientific swindlers! Are the peculiarities of the ornithology of Heligoland to be divined by ornithologists or known by intuition? or must Gaetke send his collection to every one who exhibits an interest in them? This may be possible; but I should consider myself as transgressing the limits of propriety in addressing such a request to a man who was quite a stranger to me. And, moreover, of what use would that be, if the collection itself were a mere swindle—if it were "*an importation from abroad,*" and not the product of the island at all? A spurious specimen can be sent just as easily as an authentic one. And when once public opinion is raised against one who is denounced as a swindler, the most detailed explanations and the most elaborate proofs will prove of no avail.

It seemed to me that the best means to obtain correct information would be for ornithologists to take the trouble to go over to Heligoland and inquire into the matter personally; and that is what I have myself done this summer. I went to Heligoland and addressed myself forthwith to Gaetke, declaring honestly and freely that I went there, not for his sake, neither for the sake of the island, but merely for the sake of his ornithological collection; and I am bound to state that I was met on his part with a willingness and frankness which left nothing to desire.

Gaetke is not a native of Heligoland, but a Prussian by birth.

He was led to the island by his art, and became a collector and observer of ornithology merely by chance. This chance offered itself to him in the shape of a Norwegian Gyrfalcon killed in Heligoland. In a country where only Sparrows and Loons breed, the appearance of a noble Falcon was quite a phenomenon. Gaetke was sorry to leave this beautiful bird to decay, and made an attempt to stuff it as well as he was able. It forms the still-preserved nucleus of his collection; to which in the progress of time, and little by little, all other specimens that seemed to him of some importance were added. Finally he conceived the idea of collecting examples of all the species killed on the island, and has now succeeded in obtaining in this narrow space more than 400 out of about 500 known European species. In his endeavours to attain this result he was assisted by many of the indigenous inhabitants, fishers and gunners, and especially by the brothers Aeuckens. Gaetke kept from the beginning a diary of all the rarer species. The time, the spot, and the circumstances accompanying the killing of each bird are carefully registered, together with his observations. Besides, the diary contains special measurements—a process which can be performed only with fresh-killed birds, with flesh and tissues still existing, by means of stretching them in a peculiar manner on paper. The colours of the several parts, which are commonly changed or lost by preparation, are fully detailed. Even the voice, the posture, and the movement of the living birds are not forgotten in his notices. Every one who is at all acquainted with practical ornithology must be convinced by a glance at these, that there cannot have been the slightest attempt at deception; every one will recognize in them the evidence of a conscientious and careful observer. He who looks over the contents and the progress of this diary, and compares the text of the later with that of the previous years, will cast aside all idea of dishonesty with contempt. For my part, I hope that not one of the observations recorded in this diary may be lost to European ornithology.

The collection itself corresponds perfectly with the text and contents of this diary. Each individual belonging to a rare species is, without exception, still preserved in the collection.

The manner of preparation leaves no doubt whatever that the specimens were taken from birds freshly killed, and not from dry skins imported from abroad. They were all stuffed and set up by Gaetke himself, who has thus proved himself not only a skilful artist, but also a conscientious naturalist and good observer. More perfect specimens with respect to the posture, the setting up and the arrangement of the plumage, than the greater part of the birds of his collection, I know nowhere. Stuffed birds as beautiful as his splendid specimen of the *Motacilla certhiola,* Pall., as fresh in plumage as his *Turdus varius,* Pall., as his numerous specimens of *Emberiza pusilla,* Pall., of *Actitis rufescens,* Vieill., and of his *Larus roseus* in winter plumage, I never met with.

Even the incidental narratives and assertions of the islanders with respect to birds of passage agree perfectly with Gaetke's diary and his collection. The natives have not the slightest knowledge of systematic or conventional names; they call the birds according to certain peculiarities of voice or habits, in addition to some known name. So, for instance, the *Anthus richardi,* Vieill., is called the "Brief," from its call; and the *Anthus campestris* is called the "Kleine Brief." Generally these denominations bear a character of *naïveté,* and they show at all events a fixed and quick perception and observation. Like the impassioned hunter who remembers every step, every movement of the stag or roebuck he has killed, and who will in after years tell you about his thoughts and feelings, and boast of his prowess in chase of the noble animal—how he stooped, glided and crept on the plain or the hill-side—in the same manner the island-gunners will recount the history of every bird they have killed and delivered for Gaetke's collection. When you are riding or walking with them along the island and direct the conversation to this subject, it will seem to you as though every winding of the rock were animated. "Here I found, amongst more than a hundred dead swallows, the beautiful red-headed one (*Hirundo rufula,* Temm.), which had been chased by Gaetke for two days at the peril of his life; here my brother killed the beautiful red cuneate-tailed Gull (*Larus roseus,* Jard. & Selby)." On one occasion, having taken my usual walk on the island in company of one of the islanders, without Gaetke, I said to one of my friends—"Do you believe that these people tell us the truth, or are their narratives mere fables?" He answered, "How come you to have such an idea? If these are fables, then the whole island is but a fiction, and we are not here in the middle of the sea, but rather on the heath of Lunenburg." Yet there are people who consider the whole thing a fiction, and a barefaced attempt at imposition. But if the diary, wherein the time, the place, the measurement, the voice and the habits of the bird are registered, together with the name of the individual from whom each specimen has been obtained—if the concordance of the diary with the collection, the concurrence of the narratives of the islanders themselves with the assertions of Gaetke and his collection—if the detailed accounts (confirmed by subsequent testimony) of the chase of each separate and rare bird, and the collection itself, which shows that it could have been formed only from fresh-killed birds, and these set up by an artistic hand—if all this be mere trickery, then there must indeed have been a complete school of trickery, in which the greater part of the inhabitants must have conspired for the benefit of a single man, who is almost a stranger to them, and whom they do not as yet consider as one of themselves. Such an idea seems to me quite an absurdity. In short, in Heligoland, where everybody is known, and where nothing can be concealed, there is but one verdict upon the matter, and this excludes every idea of dishonesty.

Moreover, I may ask, whence could many of these birds, killed at Heligoland and still existing there, have been imported? I will quote only the

Motacilla certhiola, Pall.,
Motacilla salicaria, Pall. (or *Sylvia caligata*, Licht.),
Regulus modestus, Gould,
Motacilla citreola, Pall.,
Turdus varius, Pall.,
Pyrrhula rosea, Pall.,
Larus roseus, Jard. & Selby,
Larus sabinii, Leach.

As for others, such as *Emberiza pusilla*, Pall., Gaetke possessed numerous specimens before they could be obtained through the trade. Finally, and in order to refute with a single word the last argument put forward to demonstrate this pretended swindle, I can inform his opponents that, so far from selling his rare birds, it was only in condescension to particular applications that Gaetke parted with a few scarce specimens, of which he possessed many, and this before they could be obtained from the dealers. All the more striking rarities are still to be seen only in his collection.

With regard to the bird-trade in Heligoland, there are but few inhabitants who are engaged in it. They kill and prepare the birds in autumn, winter, and spring, for the purpose of selling them in summer to the visitors of this watering-place. In their stock they often have things which would be considered as great rarities on the continent; but the prices are so low that no dealer in Germany, no ornithologist in the world, would part with them for such a trifle, if he were once possessed of them. I can the more confidently affirm this, as I had myself an opportunity of buying many rare birds, and am perfectly well acquainted with the prices of these articles asked by ornithological dealers. The highest prices in Heligoland are asked for the great Mews, *Larus marinus, L. fuscus,* and *L. argentatus,* but it is only for the reason that they are in great request amongst the visitors. Once more I say, the accusation of trickery or falsification is altogether out of the question: the trade in birds is an honest one, producing a casual and moderate profit to the inhabitants.

But I have said quite enough, or, rather, too much, about the suspicion so publicly raised; in answer to which I felt it my duty not to keep silence, but to explain how matters really stand. Not in order to save Gaetke's honour or the reputation of the Heligolanders. That is a private affair; and besides it would be superfluous to do this, as von Homeyer has not produced a single authenticated fact in support of the alleged trickery. Neither do I intend to blame von Homeyer's suspicions, which seem to me to have been incidentally raised by the discussion on moulting and colouring, in which he differed from Gaetke. All I desired was to remove the evil consequences of his assertions on the cultivation of science. It is certainly no wonder that, when a man like von Homeyer casts his opinion on ornithological matters in the balance, there should be some weight attached to it, and it follows that others may be induced to give it their serious consideration. Every impartial man, it is true, must confess that there is not the slightest substantial reason for suspicion; but how many people there are who are ready to believe implicitly the assertions of a man of recognized authority! He, however, who is induced to do this must of necessity be ignorant of the facts cited by Gaetke, which may be confirmed by a visit to Heligoland. To save these facts, and to preserve them for the interest of European ornithology, was my duty, the more so as I had the opportunity of verifying and ascertaining them on the very spot. In my opinion, the contributions of Gaetke can not only not be doubted, but European ornithology is greatly indebted to him for his persevering researches for twenty years in this field.

I shall, of course, leave to Gaetke, who is now engaged in finishing his Fauna of Heligoland, the task of publishing his own observations himself. But I cannot refrain from pointing out a few of the results obtained by his long and zealous endeavours, and from adding a few remarks of my own. Amongst the rarities of the European fauna for a locality such as this, the following have been shot in Heligoland:—

1. Falco gyrfalco (L.), Schleg.—One of these specimens is the most interesting I ever saw. It is a young bird, in its transitory or moulting state, or passage to the old plumage. It shows that Schlegel was perfectly right in considering the old Norwegian Gyrfalcon as a bird marked and coloured as the old Wandering Falcon. Till now I never met a specimen in which the transition was so clearly to be observed.

2. Falco vespertinus, L.

3. Falco cenchris, Naumann.

4. Strix nyctea, L.

5. Merops apiaster, L.

6. Hirundo rufula, Temm.—On comparison of Sicilian

specimens with Siberian, the Swallow found in Heligoland evidently corresponds with the European form of this species (*H. rufula*), and not with *H. daürica*, L. (*H. alpestris*, Pall.).

7. Muscicapa parva, Bechst.

8. Lanius phœnicurus, Pall. New to Europe.

9. Cinclus pallasii, Temm.

10. Merula rosea, Briss.

11. Turdus varius, Pall.

12. Turdus ruficollis, Pall.

13. Orpheus lividus (Wils.). New to Europe.

14. Toxostoma rufum (L.). New to Europe.

15. Petrocichla saxatilis (L.).

16. Aëdon familiaris (Ménétr.).—This bird is said to have been formerly frequently seen in Heligoland. I was told by Gaetke that the only individuals of this species killed in Heligoland known to him were in the collection of the apothecary Mecklenburg, at Flensburg. I went there in order to ascertain which of the two species, the Spanish-African, *Aëdon galactodes* (Temm.), or the Greco-Asiatic, *Aëdon familiaris* (Ménétr.), migrated into Heligoland. Undoubtedly it was the latter.

17. Calamoherpe certhiola (Pall.).—The bird is a splendid specimen in fresh plumage, and here found *for the first time* in Europe. Besides this one, von Middendorff killed two examples of this species near the Sea of Ochotsk. Up to that time, the only original specimen known was that of Pallas in the Museum of Berlin.

18. Iduna salicaria, Pall.: *Sylvia caligata*, Licht.—Also for the first time observed in Western Europe.

19. Phyllopneuste proregulus (Pall.): *Phyllobasileus superciliosus* (Lath.), Cabanis.

20. Phyllopneuste javanica (Horsfield), or a species very closely connected with it.—Observing this bird for the first time at Heligoland, I took it, from recollection, for one of the Javan

birds received from Paris, which Bonaparte himself, in his 'Conspectus,' i. p.240, declares to be his *Phyllopneuste javanica,* and which fully corresponds with a specimen of the *Phyllopneuste javanica,* or *Phyllopneuste magnirostris,* Blyth (no. 15969), lately received from Verreaux. Looking over my travelling notes, and, for the sake of science, comparing my stock, I was struck by a bird, also received from Verreaux, marked with the number 23707, without any denomination, the origin of which was described as follows:—"Sea of Ochotsk, latitude 59° 38′ N., longitude 147° 30′ E., Thursday, September 15, 1853. Eyes dark (*noir*) blue." Both the birds, from Java and from the Sea of Ochotsk, are so closely alike, that I was not able to ascertain from my fragmentary travelling memoranda to which of them the specimen of Heligoland might belong. But, after a closer comparison of the two birds, I can state that they do not belong to the same species, independently even of the circumstance that the places where they have been found are removed nearly 70 degrees of latitude one from the other. The name of the Javan species being already fixed, the question is to know if the Siberian species has been already described, or not. Bonaparte, in his 'Conspectus,' quotes the following Asiatic species:—*Sylvia brevirostris,* Strickl., *S. fuscata,* Blyth, and *S. griseola,* Blyth, from Middle Asia, and *Ficedula coronata,* Temm., from Japan; but none of these forms correspond with the one from the Sea of Ochotsk. Von Middendorff also, in his 'Voyage,' describes the *Sylvia* (*Phyllopneuste*) *sibirica,* v. Midd., as a new species, and the *Sylvia* (*Phyllopneuste*) *eversmanni,* Bonaparte. The first has nothing to do with the bird of the Sea of Ochotsk, whilst the latter perfectly corresponds with it. Von Middendorff obtained his *Sylvia eversmanni* on the Boganida, in latitude 70° north, and on the western declivity of the mountain Stanowoj, on the river Ujan. The place agrees pretty well with that of my bird from the Sea of Ochotsk.

But the bird of von Middendorff is certainly not that of Bonaparte. Bonaparte's *Phyllopneuste eversmanni* is simply the *Sylvia icterina* of Eversmann rebaptized (Eversm. Addend. ad Zoogr. Ross.). Bonaparte, in his Consp. p. 389, not only cites the bird of Eversmann under the head of this species, but he gives also, in his 'Revue Critique,' p. 30, his reason for doing so, saying he does not like "*ce nom maudit d'icterina.*" And truly he was right in the change of name, although it was hardly worth the trouble. Eversmann's *Sylvia icterina* was grounded on the *Ficedula icterina* of our 'Wirbelthiere Europas,' p. 185, no. 218. In a form differing a little in the structure of its wings from *Phyllopneuste trochilus,* I thought that I recognized the *Sylvia icterina* of Vieillot. Eversmann told me that in his classification he was guided by the short description in the 'Wirbelthiere Europas.' I possess an original specimen of Eversmann's *Sylvia icterina,* which fully agrees with examples of that species from Bavaria and Wirtemberg, and can only be ranged with the *Ph. trochilus,* or close to it. But, whatever may be our opinion as to this species, it has, at all events, nothing in common either with the bird from the Sea of Ochotsk under examination, or with the specimen of the bird described by v. Middendorff killed on the Boganida. I must therefore consider my bird from the Sea of Ochotsk, and the birds described by v. Middendorff as the *Sylvia* (*Phyllopneuste*) *eversmanni,* as belonging to quite a new species, which, in opposition to the Javan species standing next to it, I may call PHYLLOPNEUSTE BOREALIS, nov. sp.—It forms, together with the *Phyllopneuste javanica,* a natural group amongst the Leaf-warblers, distinguished from the other species by their considerably stronger body, by the bill being stronger and wider at its base, by the yellow band formed by the tips of the greater wing-coverts, by the ends of the quills being slender and distinctly emarginated at their terminations, by the bright yellow, sharply defined tips of the tail-feathers, and by the straight tail. This group may be designated by the name *Acanthopneuste,* and considered as a subdivision of the other Leaf-warblers.

The shining yellow spot on the wing, figured by v. Middendorff in his 'Travels,' vol. i. pl. 16. fig. 2, forms a half-perfect bright wing-band, and ranges both the species next to the *Phyllopneuste proregulus,* Pall. (= *Motacilla superciliosa,* Lath., = *Regulus modestus,* Gould), which has two yellow wing-bands and similar emarginated tips to the quills.

These two species may be distinguished in the following manner:—

Phyllopneuste javanica (Horsf.).	*Phyllopneuste borealis,* nov. spec.
The upper parts and the edges of the quills and tail-feathers brownish green.	The upper parts and the edges of the quills and tail-feathers yellowish grass-green.
The crown brownish green, of the same colour as the back.	The crown gradually becoming dark-coloured grey-green.
The tail-feathers are broad, and gradually widened on the inner web up to the well-defined termination; the margin of the inner web turns towards the tip, making a rounded obtuse angle with the shaft.	The tail-feathers are slender, little widened, and attain their greatest breadth in the end-fourth; the margin of the inner web in the end-fourth forms an irregular arc with the shaft.
The whitish termination of the first tail-feather attains its greatest breadth at the rounded obtuse angle formed by the inner web, at some distance from the shaft.	The whitish termination of the first tail-feather attains its greatest breadth close to the tip of the shaft on the inner web.

The lower parts of both the species are white along the middle, with a weak sulphur-coloured tint. The feathers of the sides of the head and of the front of the neck, in the Siberian species, are tinged with grey towards the ends and borders, so that these parts appear of a dull, cloudy grey; whilst the gorge and the front of the neck of the *Phyllopneuste javanica* is of a clear yellowish white. The flanks of the Siberian species are strongly tinged with a greenish-grey colour, their upper portions being almost of the colour of the back. The structure of the wings corresponds, in many respects, in both species. The first spurious quill is only a little larger than the upper coverts, and overreaches them in the Siberian species by about one line. The third and fourth quills are longest. The fifth is longer, the sixth shorter, than the second; but in the Siberian species the end of the second is nearer to that of the fifth than the sixth, whereas in the Javan species the end of the second is nearer to that of the sixth than the fifth. But perhaps these differences are of no great importance. In both species the third and the fourth quills are sensibly narrowed on the outer web. The wing of the Siberian species is considerably longer and also somewhat more pointed. The tail is in both species rather straight; the first feather is very little shortened, the others in the Javan species of equal length; in the Siberian species the two middle feathers are slightly lengthened. The bill is in both species of a dark-blue horn-colour, with yellowish flesh-coloured borders. The feet are in both species bright-coloured—in the Javan brownish grey, and in the Siberian bluish green.

The measurements are as follows:—

	Phyllopneuste javanica, Horsf. Java.	*Phyllopneuste borealis,* nov. sp. Ochotsk Sea.	*Phyllopneuste icterina,* E. Eversm. exp.
Length of the wing	2″ 3·2‴	2″ 5·4‴	2″ 6‴
Length of the tail	1 7·8	1 8·8	1 11·5
Head and bill	1 1·3	1 2·2	1 0·5
Opening of the mouth	·7	7·3	6·5
Bill from the nostrils	3·4	3·6	2·6
Bill's thickness at the front	1·7	1·6	1·2
Breadth of bill	·2	·2	1·5
Tarsus	·9	·9	8·8
Middle claw and toe	5‴+2·4‴	5‴+2‴	4·5‴+2‴
The first quill shorter by	1″ 3·4‴	1″ 5‴	1″ 2·3‴
The first quill longer than the upper coverts by	3‴	1‴	4‴

The measurements given by v. Middendorff perfectly agree with those of the bird from the Sea of Ochotsk, but they differ, particularly in their proportions, from those of the original specimen of the *Phyllopneuste icterina.*, Ev. = *eversmanni,* Bp.

I must leave it undecided as to which of these species the bird shot at Heligoland belongs; but I hope that Gaetke, to whom I have applied, will favour me either with positive information upon the matter, or with the bird itself, to make a comparison. On geographical grounds, it may be considered as more probable that the Siberian species immigrates into our latitudes; but nothing can be positively stated on the subject *à priori.*

21. Sylvia orpheus, Temm.

22. Saxicola rufescens (Briss.): *S. aurita,* Temm.

23. Saxicola stapazina, L.

24. Motacilla yarrellii, Gould.

25. Budytes citreola, Pall.—The young birds killed at Heligoland are especially interesting from their colour.

26. Anthus cervinus, Pall.

27. Anthus ludovicianus (Gm.).—This is certainly for the first time that this species has been observed in Europe.

28. Anthus richardi, Vieill.

29. Alauda brachydactyla, Leilsl.

30. Emberiza pusilla, Pall.—By far more frequently observed there than the following species.

31. Emberiza rustica, Pall.

32. Emberiza cæsia, Cretschm.

33. Emberiza hortulana, L.

34. Emberiza aureola, Pall.

35. Emberiza melanocephala, Scop.

36. Pyrrhula rosea, Pall.

37. Pyrrhula serinus, L.

38. Fringilla citrinella, L.

39. Parus barbatus, L.

40. Accentor alpinus, L.

41. Grus virgo, L.

42. Eudromias asiaticus (Pall.).—This is a young bird, which undoubtedly belongs to this species, and not to *Charadrius pyrrhothorax,* Temm.

43. Charadrius longipes, Temm.: *Ch. orientalis,* Schleg.

44. Charadrius virginianus, Borckh.: *Ch. marmoratus,* Wagl.

45. Actitis rufescens, Vieill.

46. Tringa temminckii, Leilsl.

47. Limicola pygmæa, Lath.

48. Sterna dougalli, Mont.

49. Larus roseus, Jard. and Selb. Winter plumage.

50. Larus sabinii, Leach. Young plumage.

51. Anas perspicillata, L.

52. Anas stelleri, Pall.

53. Thalassidroma leachii, Temm.

&c. &c.

Thus we see that birds from very different regions, including the north and south of Europe, the whole north of Asia and North America, choose this lonely rocky island as a place of rest during their migrations. Whatever may be the value of the occurrence of these isolated foreigners as regards the European fauna, the fact that they are met with here is, at all events, undeniable.

XI.—*Recent Ornithological Publications.*

1. English Publications.

The completion of Mr. Gould's 'Monograph of the Trochilidæ*' is an event in the history of ornithology which a journal devoted to that science cannot pass over in silence. In the first place, we must sincerely congratulate the author on his accomplishment of so great an undertaking. Any general connected account, even a mere synopsis, of a group of natural objects embracing over 400 species is, in these days, a task of no small labour; but when the subject selected is one of such difficulty and so little previously understood as that of the Humming-birds, the amount of hard work involved in it is something of which few people, unless personally acquainted with the facts of the case, can form any idea. It is true that we must still consider the 'Birds of Australia' to be, on the whole, the most remarkable of the magnificent series of works for which the name of John Gould must ever remain famous in the annals of our science. The special journey to the Antipodes, undertaken for the collection of materials, the number and importance of the new forms and new *facts* thus brought to light, and the complete novelty of the whole subject rendered the 'Birds of Australia' one of the most extraordinary works ever produced by the unassisted efforts of a private individual. But as an account of a single family, the 'Monograph of Humming-birds,' not only, as we have already said, from the difficult nature of the subject, but still more from the admirable manner in which these difficulties have been overcome, equally merits most unqualified approbation. It has, we know, been objected that the money spent on the production of these splendid illustrations might have been otherwise better employed in the cause of science, that it was not necessary for scientific purposes to figure every species of a group in this elaborate and extraordinary manner. To this we reply that the subject could not have been treated otherwise, for the simple reason that in any other form it would not have repaid the cost of publication. It is well known that an illustrated scientific work is not merely a dead loss, but an enormous expense to the producer, unless rendered in some way attractive to the public at large. Besides, there can be no doubt that such works as Mr. Gould's induce many persons to take an interest in science who would otherwise never trouble their heads about anything of the sort. Let us therefore render our best acknowledgments to Mr. Gould for his courage in undertaking such a subject, and for the successful way in which he has brought his task to a conclusion. We are quite sure that he has neither spared personal labour nor grudged expense in this great work, and we are equally certain that no living individual could have produced its like.

---

* A Monograph of the Trochilidæ or Humming-birds. By John Gould, F.R.S., &c. London, 1861. 5 vols. imp. folio.

In the Introduction to the 'Monograph of Humming-birds,' contained in the 28th number of the folio work, and likewise reprinted in 8vo by Mr. Gould for distribution amongst his friends*, the author has devoted some pages to the history of the group, their geographical distribution and general internal structure. He then recapitulates the whole of the species, introducing additional information as to many of them, and increasing the number to 416, being 56 more than are figured in the body of the work. For ourselves, we have never been able to draw the line between a species and a climatic variety, nor do we believe it is possible so to do. We therefore do not complain of Mr. Gould having given specific names to certain local forms, provided it can be shown that they are invariably distinguishable by constant characters. But we must confess that, judging by the characters given in some cases, Mr. Gould appears to have occasionally drawn the line rather fine. We also rather regret that he has not used many of the generic names he has employed merely subgenerically, putting them at the head of the section of the genus to which they refer, instead of using them as the generic name for the species. We do not pretend to say that the difference between a genus and subgenus is anything more than one of degree; and it is only for convenience and facility of recollection that we advocate the latter practice.

---

* An Introduction to the Trochilidæ or Family of Humming-birds. By John Gould, F.R.S., &c. London, 1861. 1 vol. 8vo.

Our correspondent Mr. Swinhoe has published a well-written and agreeable narrative of the British expedition to Pekin in 1860*. As the product of the pen of so diligent a contributor to our pages, this volume claims the recognition of 'The Ibis;' for although not an ornithological work, many references to birds and other natural objects observed are introduced. We must remind our readers that Mr. Swinhoe's labours in the cause of natural science during this expedition were purely voluntary on his part, and not in any way recognized by the Government. Mr. Swinhoe tells us—

"A well-known and learned zoologist, Mr. Blyth of Calcutta, proffered his hard-earned thirty years' experience in Asiatic zoology to illumine the North-China campaign, on the part of Great Britain, with a scientific lustre; but the niggardly policy of our Government unhesitatingly rejected so noble an offer. Thus the fine opportunities presented by the success of our arms in a comparatively new field would have been entirely lost, had not the zeal of certain private individuals actuated them to devote their leisure hours to the acquirement of those facts in natural history which always form so essential a part in the geography of any country."

Since Daines Barrington published, in the 'Philosophical Transactions' for 1773 (vol. lxiii. p. 249), his "Experiments and

---

* Narrative of the North-China Campaign of 1860. By Robert Swinhoe, &c. London, 1861. 1 vol. 8vo.

Observations on the Singing of Birds," the subject has attracted comparatively little attention. Dr. Cuthbert Collingwood's essay* is a most laudable attempt to give the matter due consideration. We entirely agree with him as to the interest and importance pertaining thereto, and congratulate him on his judicious treatment of the same. We should, however, be misleading both him and the public were we to pretend that our musical knowledge was sufficient to render worth having any criticisms in which we might indulge respecting his "Improved and Corrected Table of the Comparative Merits of British Song Birds." We therefore abstain from doing more than recording the title of this paper, which should not be neglected by any persons desirous of studying this branch of ornithology.

While French *Préfets* are memorializing their Minister of the Interior to add a clause to the Code Napoléon for the prevention of birds'-nesting, English ornithologists are encouraging the practice in this country with all their might and main. Not very long ago we published some remarks on the "Suggestions for forming Collections of Birds' Eggs," written by one of our colleagues; and in our preceding Number we noticed Mr. Atkinson's recent little book as deserving our especial commendation. Swift on the footsteps of this last comes Mr. Newman's pamphlet on 'Birds'-nesting †,' reprinted from the 'Zoologist' for the past year, which the rising generation of oologists will find exceedingly useful. It has, however, some drawbacks. The attempt to treat birds "botanically" is, as far as we know, novel, and accordingly deserves notice, though we see no particular harm in it. In a professed compilation we do not, of course, look for complete accuracy; but we must express our extreme regret that the author should only towards the conclusion have taken ad-

---

[*] "Contributions to British Ornithology—The Notes of Birds. By Cuthbert Collingwood, M.A., F.L.S., &c. From the Proceedings of the Liverpool Lit. and Philosophical Society. Read April 15th, 1861." 8vo, pp. 26.

[†] Birds'-nesting: being a complete Description of the Nests and Eggs of Birds which breed in Great Britain and Ireland. By Edward Newman, &c. London, 1861. (8vo, pp. 52.) Price *One Shilling.*

vantage of the great additions to our knowledge of the subject contained in Mr. Hewitson's *last* edition. Had he done so at the beginning, he would not have hazarded such an assertion as that "we have very slight evidence of the Golden Eagle now breeding in Britain" (p. 5)!!

'The Natural History Review,' which seems to include naturalists of all kinds in its present editorial staff, has not hitherto contributed much to our special branch of science. Nevertheless some "ornithological boulders" (if we may be pardoned the violence of the metaphor) are occasionally scattered throughout its pages; and its last number (for October 1861) contains a paper by Mr. Lubbock (entitled "The Kjökkenmöddings: Recent Geologico-archæological Researches in Denmark") on a subject highly interesting to all naturalists, the ornithological portion of which, though not occupying much space in the article itself, should not be passed unnoticed by us. Some years since, three Danish men of science, each holding a prominent position in their respective departments of learning—Forchammer the geologist, Worsäae the archæologist, and Steenstrup the naturalist—combined to investigate some remarkable formations, respecting the origin of which wise heads had long been puzzled. Success, such as they at first could never have anticipated, crowned their labours. Mr. Lubbock's most instructive paper gives, we believe, the first account of them which has appeared in the English language. We can here only state briefly that these formations, consisting of large deposits of shells, mixed with bones and rude flint implements, have been incontestably proved to be the rubbish-heaps of the ancient inhabitants of Denmark; and hence the name by which they are now known in that country. How important to the ornithologist these relics of a former age are, may be at once seen from the fact that among the birds' bones discovered in the "kitchen-middens" are those of two species which have never been known as natives of Denmark within the historic or even the traditional period. Mr. Lubbock says:—

"The remains of birds are highly interesting and instructive. The domestic Fowl (*Gallus domesticus*) is conspicuous by its absence. It is less surprising that the two domestic Swallows of Denmark (*Hirundo rustica* and *H. urbica*), the Sparrow, and the Stork are also missing. On the other hand, fine specimens of the Capercailzie (*Tetrao urogallus*), which feeds principally on the buds of the pine, show that, as we know already from the remains found in the peat, the country was at one time covered with pine forests. Aquatic birds, however, are the most frequent, especially several species of Ducks and Geese. The Wild Swan (*Anas cygnus*, L.), which only visits Denmark in winter, is also found; but, perhaps, the most interesting of the birds whose remains have been identified is the Great Auk (*Alca impennis*, L.), a species which is now almost extinct." (p. 497.)

We may add that we believe it was this discovery of Great Auks' bones in these remarkable deposits which first drew Professor Steenstrup's particular attention to that species, and caused him to draw up the excellent contribution to its history which was referred to in our last number (Ibis, 1861, p. 375). It remains to be said that the triumvirate have, since 1852, presented to the Danish Scientific Society six Reports ("Undersögelser i geologisk-antiqvarisk Retning") on the Kitchen-middens, which have been printed in their 'Transactions;' and to them, as well as to Mr. Lubbock's paper, we refer those of our readers who wish to know more of these interesting discoveries. That archæology and zoology reciprocally throw much light on each other cannot be doubted after the extraordinary researches of M. Boucher de Perthes in the valley of the Somme and those of M. Troyon in Switzerland, and it is much to be deplored that British antiquarians have not followed up their explorations more in the spirit of their Danish brethren.

Mr. Blyth continues his usual Reports on the zoological accessions to the Museum of the Asiatic Society of Calcutta, in the only two numbers of the 'Journal' for the past year that have yet reached us. His notes on the Chinese birds sent to him for examination by Mr. Swinhoe (No. 1, p. 90 *et seqq.*) must be carefully collated with the latter gentleman's papers in this Journal, in which some of the new species, as there indicated, have been already named and described. A small series of skins from the

Philippine Islands, also sent by Mr. Swinhoe for examination, contained several novelties, amongst which was a new form of Graucaline bird, proposed to be called *Pseudolalage melanictera*. We agree with Mr. Blyth that "it is much to be regretted that Mr. Cuming's valuable collection of Philippine birds was permitted to be dispersed without any list having been published of them." It is to be wished that Mr. Cassin would give to the public the catalogue of Philippine birds he was engaged upon some time since, founded upon the rich series in the Philadelphian Academy's collection. This would supply the desideratum, and afford us better opportunity than we now have of obtaining some general notions as to the character of the Avifauna of this group of islands.

Mr. Blyth's Report in No. 2 (p. 185) contains the remarks made on exhibiting to the meeting the mounted skin of the new *Casuarius uni-appendiculatus* *. The bird had died in the Bábu Rajendra Mullik's menagerie, when probably about half-grown. Mr. Blyth says, "It entirely resembles *Casuarius galeatus* of the same age in general structure; but the colouring of the plumage is that of the small young of *C. galeatus*, or with considerably less admixture of black than is seen in an ordinary Cassowary of the same size; the only marked distinction consisting in the very different arrangement and predominating yellow of the bright colours of the neck, and in the single small yellow caruncle in front of the neck, in place of the two larger and bright-red caruncles of the common species. Again, the nude skin of the lower part of the neck is smooth or comparatively tense, and not tumous and wrinkled as in the other. I remark, also, in the stuffed specimen, along the medial third of the back a nude line about $\frac{3}{8}$ in. broad, parting the feathers which flow on either side. Unfortunately the body was thrown away, not even the sex having been ascertained; but the sexes in this genus hardly differ in appearance; nor is the bird so skilfully set up as could be wished. The *habitat* of this species of Cassowary remains to be ascertained."

The first section of the sixth and concluding part of the fourth volume of the 'Transactions' of the Zoological Society of London, which has been lately issued, contains an elaborate essay by Mr. W. K. Parker, "On the Osteology of *Balæniceps rex*." There are three large plates given, which illustrate in complete detail the osteological structure of this remarkable bird, and also a coloured figure of "his majesty" in full plumage, taken from Mr. Wolf's large water-colour drawing in the Society's portfolio. Though unsuccessful, with all the care lavished upon them, in preserving these birds alive, the Society have certainly done their best to render them, "even in their death," useful to science and to the advancement of knowledge. One of the skeletons, we understand, has been placed in the British Museum, the other in the collection of the Royal College of Surgeons. Mr. Parker's final verdict is that the Boatbill is "essentially a Heron," and most nearly related to *Cancroma*, "which might be placed subgenerically to it," although it "seems as it were to have borrowed characters from the Umbre (*Scopus*)."

---

* Cf. 'Ibis,' 1860, p. 307.

Those interested in the subject should also refer to Mr. Bartlett's remarks on the dermal system of the Balæniceps, given in the Society's 'Proceedings' (1861, p. 131).

2. French Publications.

The 'Revue et Magasin de Zoologie' for the past year contains but few papers relating to our branch of science. M. Moquin-Tandon continues his "Considérations sur les œufs des Oiseaux;" and M. Hardy writes letters in criticism thereof to M. O. Des Murs. Dr. Pucheran writes some curious "Observations sur les ressemblances dans la forme du bec entre les Genres des Passereaux d'une même Faune, appartenant à des sections différentes de cet Ordre d'Oiseaux." We do not understand that this parallelism in the modification of a single organ, though certainly noteworthy, is likely to lead to any remarkable discovery.

3. German Publications.

Petermann's 'Geographische Mittheilungen' for January of the past year contains an important article from the pen of our correspondent Theodor von Heuglin, which we have not yet noticed*. It is a systematic list of the Mammals and Birds of the coast of the Red Sea and Somali-land, partly derived from the observations of former travellers, Rüppell, Hemprich, Ehrenberg, and Speke, and partly from the notes and collection made by v. Heuglin himself during his several expeditions into these regions. This catalogue has been drawn up with particular reference to the range of the species, not only horizontally, but also vertically above the sea-level, and will prove of service not only to future explorers in this country, but to the general student of geographical distribution—a most important branch of natural history, generally much neglected by scientific travellers. The migration of birds within the tropics is also a subject on which very little is as yet known or understood by naturalists, and on which a continued series of observations, such as those made by von Heuglin, would no doubt throw much light.

The Red-Sea Fauna, according to von Heuglin, by no means forms a distinct zoological province, but embraces in its area parts of two different zones. The northern portion of it, taking the whole as extending from 30° to 18° north lat., is outside the boundary of the tropical rain-season, which begins at about 16° north lat., and is thus very distinct from the southern portion. The western side of this northern portion is Ægypto-Nubian in character, but, owing to the want of fresh water and vegetation, much poorer in individuals; the eastern side, embracing Arabia Petræa, is more peculiar, containing a mixture of European or Asiatic types, but overwhelmed by African species. The southern portion of the Red-Sea Fauna (*i.e.* that below the line of 16° north lat.) falls within the range of the tropical rainy season, and is so closely allied to the West-African Fauna, that but very few of the West-African types are unrepresented within it. There is, in fact, little doubt that a broad band of country, traversing Africa from coast to coast north of the equator, has as nearly uniform zoological as we believe it has botanical characters.

The total number of species of birds enumerated by v. Heuglin as appertaining to the Red-Sea Fauna is 325, namely—

---

* Th. v. Heuglin's Forschungen über die Fauna des Rothen Meeres und der Somali-küste. Petermann's Geogr. Mitth. 1861, pp. 11 *et seqq.*

Accipitres	27	Struthiones	1
Passeres	164	Gallinæ	12
Scansores	16	Grallæ	56
Columbæ	5	Anseres	44

In conclusion, characters are given of the new species discovered by v. Heuglin, most of which have already been described elsewhere. It is doubtless well known to many of our readers that this energetic traveller has started again for Africa, and is at the present moment in Dar-Four, being in command of the expedition despatched to succour, if possible, or at least to ascertain the fate of the unfortunate Dr. Vögel.

In Part viii. of the same Journal (August 1861) will be found some observations on the Vertebrates of Northern Egypt and Stony Arabia [*], made by Th. v. Heuglin during the progress of his new expedition through those countries in March, April, and May of the past year. His stay in Lower Egypt having taken place during the breeding season has enabled him to procure some interesting specimens, for a list of which see p. 311. Curious is the discovery of a pair of *Podiceps auritus* breeding in the Lake of Tamieh in Faguin. "There are *no* House-Sparrows in Suez and Ain Mousa, or generally in the cities on the Red Sea."

The 'Sitzungsberichte' of the Imperial Academy of Sciences of Vienna for June last contains a paper by H. A. v. Pelzeln on some new Rapacious birds of the Imperial Collection [†]. *Cathartes urubitinga* (the specific term being taken from Natterer's MS.) is, if we understand rightly, the Brazilian species commonly, but we believe incorrectly, identified with *Cathartes aura*. *Milvago crassirostris*, said to be from Chili, resembles *M. montanus*, but has a stronger bill and a rather broad white band extending "ab alæ flexura ad axillam." Herr v. Pelzeln does not seem to notice *M. albogularis* (Gould) or *M. caruncalatus* (Des Murs), both, we believe, good species of the same section.

---

[*] Einige Bemerkungen über die Wirbelthiere des nördlichen Ægyptens und des Petraïschen Arabiens, &c., von Th. v. Heuglin. Peterman's Geogr. Mitth. 1861, p. 316.

[†] Ueber neue und weniger bekannte Arten von Raubvögeln in der Kaiserlichen Sammlung. Von A. v. Pelzeln, Sitz. Akad. Wiss. Wien, xliv. p. 7.

Leucopternis superciliaris and *L. palliata* are both from Brazil, obtained by Natterer, as likewise *Buteo minutus,* which is, perhaps, not different from *Asturina brachyura* (Vieill.).

The report of the thirteenth annual meeting of the German Ornithological Society, held at Stuttgardt in September 1860, of which we promised our readers a further notice some time ago, contains several important papers, to which students of the European Ornis should devote their attention. Of one of the most remarkable of these, from the pen of Dr. Blasius, we have already given a translation in these pages*. The same experienced naturalist has given us a few remarks upon the different species of Eagles, contained in a fine series of 99 examples, which was submitted to the meeting for their inspection by the veteran ornithologist Herr Pastor Brehm. Dr. Blasius considers the new Spanish Eagle, which was lately discovered by Dr. Reinhold Brehm of Madrid, and by him named *Aquila adalberti,* to be nothing more than *Aquila nævioides*—a "species found throughout Africa, and already known as occurring incidentally in the Crimea and in Southern France." Mr. Gurney likewise assures us that two examples of this Spanish Eagle lately obtained by him from Dr. R. Brehm are undoubtedly "*Aquila nævioides* in the pale worn plumage it constantly assumes before the moult." The regular occurrence of this Bird of prey in any part of Europe is, however, quite a new fact, for the discovery of which we are greatly indebted to Dr. R. Brehm.

Dr. Blasius tells us that he knows only of 11 good species of true Eagles existing in European collections, which he arranges as follows:

A. *Onychaëtos,* Kaup.

1. *Aquila malayensis,* Reinwardt, ex Ind. Or.

B. *Uroaëtos,* Kaup.

2. *Aquila fucosa,* Cuv., ex Nov. Holl.

C. *Pteraëtos,* Kaup.

3. *Aquila vulturina,* Daud., ex Afr. Merid.

---

* 'Ibis,' 1861, p. 292.

D. *Aquila.*

4. *Aquila chrysaëtos.*
5. *A. bifasciata,* Gr., ex As. Centr.
6. *A. imperialis,* Bechst.
7. *A. nævioïdes.*
8. *A. clanga.*
9. *A. nævia.*

E. *Hieraëtus.*

10. *A. bonellii,* Temm.
11. *A. pennata,* Gray.

We may remark that there are certainly two good species of Eagle to be added to this list: (1) *Aquila gurneyi,* G. R. Gray—a very distinct Eagle allied to *A. malayensis,* discovered by Mr. Wallace in Batchian (figured in P. Z. S. 1860, p. 342, pl. 169); and (2) *Aquila desmursi,* Verreaux, of Western Africa, which is best placed along with the *Hieraëti.*

Our readers who refer to this Report will notice that Mr. Darwin's theory and many other questions of the day were discussed at the meeting of this Society. They will find details on these subjects in the "Beilagen" attached to the "Bericht." Baron R. König-Warthhausen's Oological Memoirs contain much that is worthy of notice, particularly in reference to the theory of the coloration of the eggs of the Cuckoo (*Cuculus canorus*).

The second and third numbers of Cabanis' Journal for 1861 contain a mass of matter interesting to ornithologists. The Editor continues his paper on the birds of Costa Rica from the collections transmitted by Hoffman and v. Frantzius. A new *Calliste* (*Callispiza frantzii,* most nearly allied to *Calliste icterocephala*) is a great discovery for Central America. We trust that Messrs. Salvin and Godman, who are now proceeding to Costa Rica, will not fail to obtain specimens of this bird for our English collections. Dr. H. A. Bernstein gives us further confirmation of the curious habits of *Buceros* in the breeding season (p. 116 *et seq.*). To Dr. Gloger's ill-natured attack upon "three English anatomists and naturalists" we believe a reply has already been prepared elsewhere; so for the present we will pass it over in silence. Poor Dr. Gloger must have fallen a victim to the Anglophobia which was so prevalent in Berlin at the time of the celebrated "Macdonald-controversy"!

4. American Publications.

The 'Proceedings' of the Academy of Natural Sciences of Philadelphia for 1861 (of which we have received the sheets up to p. 257) contain several papers relating to ornithology. Mr. Cassin (p. 72) calls the attention of the Academy to a new species of Goose (*Anser rossii*) from Great Slave Lake, allied to the White Geese, *A. hyperboreus* and *A. albatus*, but smaller than either, and about the same size as the Mallard (*Anas boschas*).

In the 'Proceedings' for July last (p. 170) we find a "Monograph of the *Tringeæ* of North America" by Mr. Elliott Coues—a name new to ornithologists, but not the less heartily welcome as that of a recruit to our ranks, who begins by fighting his first fight well, and against a very hard subject. In the latter part of 1860 Mr. Coues, being engaged in examining the collections made by Messrs. Kennicott and Ross on Great Slave Lake, detected what he believed to be a new Sandpiper allied to *Tringa maculata* and *T. bonapartii*. In order to describe it properly he was induced to undertake a monographic sketch of the section of the group to which it belongs. Mr. Coues considers that the *Scolopacidæ* may be most naturally divided into two subfamilies instead of three, as most authors have preferred to arrange them. One of these, the *Scolopacinæ*, embraces also the *Tringæ*, whilst the other is composed of the old genus *Totanus* with the toes webbed. In these views we are inclined to agree with him. The subfamily *Scolopacinæ*, then, as far as regards the American species, he separates into two sections—the *Scolopaceæ* and the *Tringeæ*. Of the North American species composing the latter of these groups he has given a very complete and very pains-taking account, dividing them into eight genera, namely *Micropalama* and *Ereunetes*, composing section A, in which the toes have "a decided basal web," and *Tringa, Calidris, Arquatella, Ancylocheilus, Pelidna*, and *Actodromas*, forming the more typical section B, in which the toes are cleft to the base, or show a very rudimentary membrane. The first seven genera contain each but a single North American representative; the last-named (*Actodromas*) five, which Mr. Coues divides again into two sections. The first of these, *Actodromas*, has the Little Stint of Europe

(*Tringa minuta*) for its type—a species not known in America, but there represented by *Tringa wilsoni.* At the head of the second subgenus (*Heteropygia*) stands the *Tringa bonapartii,* a species also known to British ornithologists as a straggler, and commonly, but incorrectly, called *Tringa schinzii.* We may remark here, that though Mr. Coues has carried the principle of subdivision to its utmost development, he has wisely abstained from using his new term *Heteropygia* as a generic title. Mr. Coues's new species is *Actodromas bairdii,* hitherto confounded with *A. bonapartii,* but really belonging to the first section of the genus, and to be placed between *A. minutella* (*Tringa pusilla,* Wilson) and *A. maculata.* Specimens of this bird have been obtained in Nebraska, and also in the vicinity of Great Slave Lake. Mr. Coues also considers the Dunlin of America distinct from that of Europe, and, following Mr. Cassin, calls it *Pelidna americana.* Mr. Coues is evidently a hard-working and conscientious investigator, and we have little doubt that the results he has arrived at may be relied upon.

A second paper by the same author, which will be found a few pages later in the 'Proceedings,' is entitled "Notes on the Ornithology of Labrador," and gives an account of his researches during an expedition in charge of J. W. Dodge, Esq., which visited the coast of Labrador in the summer of 1860, in order to procure for the Smithsonian Institution specimens of the birds to be found there, with their nests and eggs.

"The point reached," Mr. Coues tells us, "was Sloop Harbour, a few miles south of Little Mecattina, where we collected most of the eggs procured during the voyage. Here the *Somateria mollissima* and the *Utamania torda* were the most abundant and characteristic birds, while the *Larus argentatus, Uria grylle,* and *Mergus serrator* were also very numerous, all breeding on the islands in the vicinity. On the 6th of July the vessel left Sloop Harbour, and passing the Murre Rocks, where the *Uria lomvia* was breeding in immense numbers, proceeded directly to Esquimaux Bay, where the greater part of the summer was spent. Here were collected most of the land birds procured; among them the new *Ægiothus fuscescens, Zonotrichia leucophrys,* and *Anthus ludovicianus* were very abundant; and *Pinicola canadensis* and *Turdus* *aliciæ* not rare. Grouse and Ptarmigan were also met with; and I was fortunately enabled to examine an extensive breeding place of the *Mormon arcticus* (?)."

"A few days were spent at Rigolet, a station of the Hudson's Bay Company, in charge of Henry Conolly, Esq., from whom were received some valuable meteorological statistics. On the 15th of August the vessel left Esquimaux Bay and proceeded to Henley Harbour, at the northern entrance to the Straits of Belle Isle. At that date the smaller Waders generally had commenced their southern migration, and during two weeks spent there, which completed my stay on the coast, specimens of most of them were procured."

For further details we must refer our readers to Mr. Coues's paper, which contains very interesting notes on many of the species. The most important discoveries were *Turdus aliciæ*, "breeding abundantly;" *Saxicola œnanthe* of Europe, "one example;" and *Ægiothus fuscescens*, a new Red-poll, "abundant along the coast of Labrador."

The commencement of Mr. D. G. Elliot's Monograph of the *Pittidæ** was alluded to in our last Number. We have just received the second part of the work, of which, when we consider the disadvantages that the author has had to contend against, we cannot do otherwise than speak very favourably. The plan adopted has been to give full-sized coloured figures of all the species of the group, something after the fashion of Mr. Gould's Monographs. The figures in the first part were drawn by the late P. Oudart of Paris. In the second they are the product of Mr. Elliot's own pencil, and in spite of some criticisable defects, we like the latter the best. In the Latin characters given to each species we are also glad to notice an improvement in the second number. Those in the first part are, to say the least of it, sadly misprinted. We trust Mr. Elliot will prosecute this undertaking and bring it to a successful conclusion. The group of birds he has taken up is one of great beauty and exceeding interest. We have at present nothing later than Bonaparte's diagnoses in his

---

* A Monograph of the *Pittidæ*. By Daniel Giraud Elliot, F.Z.S, &c. New York, 1861. Parts 1 and 2. fol. with coloured plates.

'Conspectus Generum Avium' to refer to for the determination of the species, and Mr. Elliot's work will be of great assistance to science in this way. When the plates are finished, we hope that a good analysis of the geographical distribution of the species will not be omitted. We may remark that *Cœlogyne præcox*, belonging, as we believe, to the epiphytous *Orchidaceæ*, should not have been placed on the ground, as Mr. Elliot has depicted it in the plate of *Pitta concinna* !

Mr. J. M. Wheaton (of Columbus, Ohio) has prepared a "Catalogue of the Birds of Ohio" for the 'Ohio Agricultural Report for 1860,' of which we have received a separate copy through the kindness of some of our American correspondents. It follows Prof. Baird's classification, and will be useful as a local list of names, containing likewise an appendix of notes and remarks.

The 'Canadian Naturalist and Geologist'* is, we are glad to say, progressing very satisfactorily under the conducting care of a Committee appointed by the Natural-History Society of Montreal.

No. 4 contains a catalogue of the Birds collected and observed around Lakes Superior and Huron in 1860, by Robert Bell, reprinted from the Report of the Geological Survey for 1860. The list is somewhat meagre, and the nomenclature not always perfect ; but as regards the first point, the country, as we can affirm from personal experience, is rather poor ornithologically. Did Mr. Bell never meet with the *Tetrao phasianellus* ? On the upper branches of the St. Croix river, in the outskirts of the forest, we found it tolerably abundant in 1856—and *very good to eat* !

No. 5 contains Mr. Geo. Barnston's recollections of the Swans and Geese of Hudson's Bay, which have already appeared in 'The Ibis,' and an article by Mr. Vernon on the Wood-Warblers found in the vicinity of Montreal.

---

* The Canadian Naturalist and Geologist, and Proceedings of the Natural-History Society of Montreal. Montreal, 1861. Parts 1—5.

XII.—*Letters, Extracts from Correspondence, Announcements, &c.*

We have received the following letters:—

To the Editor of 'The Ibis.'

5 Peel Terrace, Brighton, Nov. 16th, 1861.

Sir,—November might be called the Ornithologist's month, at least on the South Coast; in it nearly all the rare birds have been found which have come under my observation.

On Friday (15th) two fine specimens of the Shore-Lark (*Alauda alpestris*) were taken by a bird-catcher at Rottingdean, near Brighton, in clap-nets. The decoy birds used were common larks (*A. arvensis*), for which he first mistook these rare Northern wanderers. I saw the man who caught them; he said there were five, and on the following morning in the same place he took a third; therefore two more remain to be accounted for on some other part of the coast. I suppose these arrivals had something to cause them of an unusual kind, perhaps the late severe gales, though all three birds were very fat and healthy, with no appearance of privation. The two first were cocks in good plumage, strong, had crests particularly fine, and showed the elongated feathers (black, and pointed over the eye) well developed. I had them all out and examined them minutely, during which they pecked my fingers to the best of their ability. The black tail-feathers were rich, but the gorget (rather narrow when the bird looks down) not what I expected to find from the various plates I consulted; it is more seen, however, when the head is held back.

I have never had the good fortune on any previous occasion to handle three living British examples of the Shore-Lark at one time. Two of them have been placed by Mr. Swaysland, Queen's Road, Brighton, in his aviary, and may there be seen; the third he proposes to stuff. I shall avail myself of the opportunity to observe the habits of *A. alpestris*. The cry is like a Snow Bunting's, or that of the chick of the domestic fowl; and they keep to the rock placed in the aviary, rather than descend among the shrubs below, seem restless in their habits, and in appearance remind one of the *Emberizinæ*. I inspected these birds within a few hours of their capture, and was present when the man brought the third next day: he was quite ignorant of their value. I can therefore vouch for their authenticity as British specimens.

Two Buntings (*Emberiza nivalis*), very white, and an abnormal specimen of *A. arvensis*, as pure as snow, were caught by another man at Rottingdean the same day as the third Shore-Lark, and were placed in the above-mentioned aviary, together affording a most interesting spectacle. A few *Linota canescens*, Yarr., have been taken this year.

Yours, &c., GEO. DAWSON ROWLEY.

P.S. Nov. 20th.—I trouble you again to say that the finest specimen of the three Shore-Larks has a good broad gorget; therefore my remarks on that point apply only to the other two. They are all male birds; and the one stuffed has passed into the collection of Henry Collins, Esq., of Aldsworth, near Portsmouth.

In the aviary they sometimes dig for their food, which I *believe* the Pipits never do, though I cannot speak from actual observation.

To the Editor of 'The Ibis.'

Norwich, Dec. 7th, 1861.

SIR,—Should you consider the occurrence of a Scops Eared Owl (*Strix scops*) in Norfolk worth recording in 'The Ibis,' I have much pleasure in sending you the following particulars.

On the 27th of November an adult male of this pretty little Owl was picked up dead near the Lighthouse at Cromer, against which it had in all probability flown with great force, attracted by the glare of the lamps. The head was uninjured and the plumage perfect, but the flesh on the breast and the point of one wing showed symptoms of having sustained a very severe blow.

The stomach was found to contain a mass of fur about the size of a walnut, amongst which was discernible an almost entire skeleton of a mouse, together with the heads and forceps of several earwigs, and three stout caterpillars nearly an inch in length. This rare species has occurred previously in this country in three or four authentic instances, but not of late years. The present example is now in the possession of J. H. Gurney, Esq., M.P., of Catton Hall, and forms a most interesting addition to his fine collection of Norfolk rarities.

Yours, &c., H. STEVENSON.

In reference to some remarks in our notice of 'Gatherings of a Naturalist in Australasia' ('Ibis,' vol. iii. p. 197), Dr. Bennett writes to us from Sydney (Aug. 20, 1861) as follows:—

"You mention in the review (in 'The Ibis') of my 'Gatherings,' that the diagram of the Albatros is not explained. In this I agree with you, and send you the following explanation. The diagram forms the segment of a circle:—N. is the direction from which the wind is supposed to be blowing; C. is a ship sailing within six points of the wind; B. is the course of a cutter which can sail, '*close-hauled,*' to within four and a half points of the wind; A. is the course of the Albatros, which flies so close to the wind as to keep to within two points of the wind, and appears almost to fly against it."

Dr. Bennett also states that he has great hopes of being able to procure living specimens of the Kagu (*Rhinochetus jubatus**) of New Caledonia for the Zoological Society of London, of whose Menagerie he has already been so distinguished a benefactor.

Mr. T. C. Jerdon, so well known for his writings on Indian Natural History, has in an advanced state of preparation a work on the Natural History of the Vertebrated Animals of that country. It will contain characters of all the classes, orders, families, and genera, and descriptions of all the species of Mammals, Birds, Reptiles, and Fishes found in India.

The geographic limits of the animals described in this work will be:—on the north, the watershed of the Himalayas; thence, on the east, from Teesta River to its junction with the Bramapootra, and down that river to the Bay of Bengal; on the west, from the Indus, where it breaks through the Himalayas, to Kurrachee; and on the south, Cape Comorin.

The object of this work being to enable naturalists and travellers to identify such objects of natural history as they may meet with, the descriptions, though ample for discrimination, will not in general be too minute. An account of the habits and manners of the different animals described will be given as far as is known; and on this head the author's own experience and residence in various parts of the country, from Darjeeling to Trichinopoly, will enable him to give much new information, more especially as regards their geographical distribution.

---

* Cf. Ibis, 1861, p. 136.

The greater part of the work is written; and the two volumes relating to the Birds are, we are informed, almost ready for the press. We need hardly say that we look forward to the appearance of this work, which has been so long and so earnestly demanded, with great anxiety.

Mr. Blyth writes to us in August last, referring to his expedition to the Tenasserim Provinces:—"I several times noticed *Pitta* (*Hydrornis*) *cyanura* in the jungle-clad hills of Maulmein and Martaban. In the Taony River I had a good opportunity of watching, through a glass, a solitary *Podica personata*. In the southern provinces the Malayan Tapir occurs, with *Argus giganteus*, *Euplocomus vieilloti*, *Francolinus perlatus*, &c."

Since then, having been seriously ill, Mr. Blyth has again returned to Maulmein, to recruit his health by another sea trip. He says (Calcutta, Sept. 29th):—"I am again off to Burmah on the 2nd, on three months' leave of absence; whereby you will perceive that I am convalescent, though still incapable of much exertion. I have been well enough to attend at the Museum regularly for the last week. Dr. Jerdon is still at work there, and I have been looking over various groups of birds with him. For instance, yesterday that of the Bulbuls—a distinct and isolated family, in our opinion, in species of which we are rich. Without going much into details, we have settled that my *Setornis criniger* is a diminutive species of that group of *Criniger* to which *flavirostris*, *gularis*, and *ruficaudatus* belong; also, that *Spizixos* must be included in the major group, *Phyllornis* and *Iora* together constituting a subordinate one or subfamily. By the way, *Basilornis* has not a little the look of *Spizixos*, but pertains to a different family, the former having a distinct subterminal notch to each mandible.

Now for a few comments on 'The Ibis.' But first, while I think of it, *Emberiza personata* of Swinhoe (*melanops,* nobis), according to Bonaparte's Conspectus, should rather be the species following *E. personata* in that work, i. e. *E. spodocephala,* Pallas. —'Ibis,' 1861, p. 225, *Falco sacer.* May not the specimen assigned to Nepal have been a trained bird, brought across the Himalaya? —P. 226, *Milvus affinis.* I doubt this being Indian.—P. 240, Knot: 'seen near Cawnpore.' Once only obtained by Jerdon, and once by myself.—P. 245, *Herodias melanopus.* We have it from Mergui. For 'breast' read 'nape.'—P. 246. By *Larus ridibundus, L. brunneicephalus* is probably meant, *L. ridibundus* being here much more rare. *L. minutus* is new to the Indian fauna. Ditto *Anser minutus.* *Graculus pygmæus* should be *G. javanicus.* —P. 253, *Milvus govinda.* I think *M. melanotis* is distinct.—P. 259. *Cuculus striatus* cannot be this species, as the note is said to resemble that of *C. canorus.*—P. 263. *Phal. filamentosus* is probably the species which I have hitherto termed *sinensis.*—Errata: p. 269, l. 23, for 'greater' read 'gaunt'; line 27, for 'being only' read 'the lungs only of.'—Several of Mr. Newton's birds from Mauritius (p. 271 *et seq.*) were introduced there by the French along with the *Cervus rusa* of Java and the *Lepus nigricollis* of S. India and Ceylon (probably also introduced into Java, where it is called *L. melanauchen,* Temm.), e. g. *Acridotheres tristis, Estrelda astrild, Geopelia striata, Francolinus madagascariensis* (qu. *Fr. sinensis,* which we have as the 'Pintado Partridge' from the Mauritius), *P. ponticerianus,* and *Synœcus sinensis.*—P. 279. What is *Turdus pelodes*? A bird sent me by Swinhoe as *T. cardis* ♀ equals my *T. dissimilis,* which I once thought was the male of *T. unicolor.* What is Hodgson's *T. naumanni*? Once only obtained, I think; as *T. pilaris* once was at Saharunpur. *T. iliacus* visits Kohat in large flocks.—P. 297. The Scandinavian *Orites caudatus* is fully as different from that of Britain, &c., as *Sitta europæa* (v. *uralensis*) from *S. cæsia*; but how about the Himalayan *S. cinnamomeiventris*? As for the union of the Crossbills, there is an enormous difference between *Loxia pytiopsittacus* and the diminutive *L. himalayana, L. curvirostra* being intermediate. *Circus pallidus* is nearer to *C. cyaneus* than to *C. cineraceus.*—P. 259, *Columba leucozonura.* Is not this *C. rupestris* (Pallas)?

"How many more species of Cassowary shall we have to recognise? Recollect that there is a recently extinct Emeu, *Dromæus ater* (Vieillot), from one of the islands, recognized by Prince Bonaparte, of which a specimen is stated to be extant in the Paris Museum. I have *six* distinct species of Oriole with the black nape, viz. *Orioli acrorhynchus* (Philippines), *chinensis* (China), *macrourus* (Nicobars), *coronatus* (Andamans), *indicus* (chiefly east of the Bay of Bengal), and *tenuirostris* (Burmá). The *O. coronatus* of the Andaman Islands requires to be compared with the Javan bird."

The following extract is from a letter addressed by Mr. J. J. Monteiro to Dr. A. Günther, dated "Cuio Mines, Province of Benguela, 13° S. L., August 23, 1861:—

"I am now in 13° S. Lat., and my collection of Natural History already boasts of a dozen different species of birds (all different from those I have noticed in other places), a tinful of marine fish, several flat skins, a beautiful specimen of a hedgehog, two live snakes, &c. &c. I have also arranged that freshwater fish from a river and lagoon at about six miles distance from me shall come to my hands for preservation. We have been visited by zebras and a large species of tailed monkey, as well as nightly by hyenas. There are also some curious guinea-piggy looking animals in great numbers in holes and crevices in the rocks (*Hyrax*?).

"The rock of the country is gneiss, except near the sea-shore, where limestone and gypsum rocks occur. The scenery is wild and dull, nothing but bare rocks with scarcely any vegetation (a few spiny and thorny bushes and a few roots of grass), and the whole country is cut in all directions by great ravines, deep, dry, and solitary: only a few springs of perfectly brackish water. The climate is, however, very healthy, and at this season very pleasant—65° Fahr. at night to 75°–80° in the shade by day. Near the beach and in the vicinity of the rivers, the scenery, of course, is more varied and vegetation more luxuriant. Insects are scarce.

"This character continues towards the interior, it is said, for three days' journey (about fifty to sixty miles), when, towards the provinces of Quilengues, Caconda, and Bihé, it changes to one of great luxuriance and wonderful abundance of animal life. I say this, of course, from hearsay, as well as from the number of skins, &c., that come from thence.

"I shall shortly leave for Mossamedes (Little Fish Bay), a locality said to be of great interest; and if the fauna partakes of the same character as the flora, it must certainly be very singular. I had *vivâ voce* information of the interior of that place from your countryman, Dr. Welwitsch, who there discovered some extraordinary novelties at a place called 'Huila,' where the Portuguese have lately established a colony. I may not very likely have an opportunity of penetrating far inland in my mineralogical explorations, but I expect even in the littoral region to come across interesting specimens. Mr. Sclater will be glad to know that this Province of Benguela is the place *par excellence* for the Finch family, and that I have already some exquisite little things. My Bembe friend, *Pytelia monteiri*, I have never again seen, but hope to introduce some other little beauties to the next London season."

Mr. Edward Newton has at last been able to accomplish his long-wished-for visit to Madagascar, having been appointed one of the deputation sent from Mauritius to congratulate the new king Radama on his accession. The mission left Port Louis on 22nd Sept. last, and arrived in Tamatave Roads after a good passage of four days. Our correspondent's last letters are dated 12th Oct., but contain no ornithological information. Mr. Newton was then four days' journey from Antananarivo, the residence of the Court of the Hovas.

Writing just after his arrival at Tamatave (27th Sept. 1861), Mr. Newton says, on the passage he saw very little, except some Tropic-birds, and a few Whimbrels, Shearwaters, and Petrels. At the Port he had observed some Crows, a Kite, some *Nectariniæ*, a *Centropus* or *Coua*, and a few Whimbrels and Gulls, but little besides. The party expected to be ten days on their journey up to the capital, to remain there ten days, and take ten days on their return; so that, with the uncertainty of their arriving at Mauritius in time for the December mail, it is probable that we may not receive further accounts of them or hear of the results accomplished by the mission until February next.

Mr. Wallace's last letters are dated from Batavia, Sept. 20th. After leaving Timor, of which island Mr. Wallace has given us an account in our last Number ('Ibis,' 1861, p. 347 *et seq.*), he proceeded to Bourou, and staid there two months. "From the existence of the Babirusa in this island," says Mr. Wallace, "I had been somewhat doubtful whether its fauna would not prove more *Celebesian* than *Moluccan*. I was soon, however, satisfied that it is a true Moluccan island, though a very poor one. Most of the common Amboyna and Ceram forms occurred, some absolutely identical, others sufficiently modified to be characterized as distinct species. The *Tanygnathus, Polychlorus, Eclectus, Geoffroius, Eos,* and *Trichoglossus,* as well as the *Aprosmictus,* occur as in Ceram, the *Tanygnathus* being the only one which varies from the type, wanting the black markings on the wings. *Lorius* is altogether absent, as well as *Corvus, Buceros,* and *Cacatua,* genera which are present in every other island from Celebes eastwards. This deficiency does not rest alone on the fact of my not having met with them, though that would be pretty good proof, they being all ubiquitous and noisy birds, but on the universal testimony of the natives, many of whom know all these birds from their visits to other islands, and are quite sure that their own country is destitute of them.

"The Flycatchers (3–4 sp.) seem new, as well as a very common *Mimeta,* near *M. forsteni* of Ceram, and a *Tropidorhynchus*—I suppose the *T. buruensis,* Q. & G., though in Bonaparte's 'Conspectus' that species is given to Celebes, where I never found the genus. The Pigeons are mostly known species, except a fine *Treron* with very brilliant yellow-marked wings; and I heard of other species of the same group occasionally met with. A single specimen of *Tanysiptera* seems different from the Ceram species; and a *Pitta,* near *P. macklotti* and *P. celebensis,* but sufficiently distinct, is also unique. I was much surprised to find, besides the *Ptilonopus viridis* of Amboyna, the beautiful *P. prasinorrhous,* G. R. Gray, which I had first discovered in Ké, then found in Goram, afterwards in Waigiou, and I think there can be no doubt it is also found in Ceram; but birds seem so thinly scattered over that large island, that it would take years to acquire a proper knowledge of its ornithology.

"At Bouru I shot a *Glareola*—the first time I have met with the genus. I found Coleoptera and grubs in its stomach. Its sternum shows it to be a true Wader, though a most curious and abnormal form.

"The Cassowary is absent from Bouru, and from every Moluccan island except Ceram; yet I had been positively assured it was common in Bouru. The error has arisen thus. The people of the little island of Bonoa, at the west end of Ceram, often get young Cassowaries from the main island to bring up. The traders of Cayeli in Bouru buy these, and then take them to Amboyna for sale, often in company with young Babirusas. This happened when I was there. Of course the Amboyna merchants purchasing these animals from Bouru residents, and having no reason for hunting up their pedigree, take it for granted that Cassowaries and Babirusas are found wild in Bouru."

Mr. Salvin's latest letters are dated from his old quarters at Dueñas in Guatemala, Nov. 4th, and state that, having been there since the 14th of the previous month (in company with Mr. F. Godman), he had obtained about 100 specimens of birds, amongst which were some five or six new to the fauna of Guatemala: "a Swallow, which may be *Hirundo lunifrons, Antrostomus carolinensis, Ardea exilis,* a species of *Cardellina* (not *C. rubra*), an *Elainea,* probably new, and a bird something like a *Granatellus.*" In Humming-birds these gentlemen had been pretty successful, having obtained examples of *Selasphorus heloisæ* and *Delattria henrici.* They had also fallen in with a flock of the rare little Parrot, *Conurus lineolatus,* and obtained three specimens. They intended to stay at Dueñas about three weeks longer, and then make an excursion to Coban; leaving Guatemala for Costa Rica about the middle or end of January.

THE IBIS.

No. XIV. APRIL 1862.

XIII.—*Notes on the Sea-birds observed during a Voyage in the Antarctic Ocean.* By E. L. Layard, Corr. Memb. Z.S.L., Secretary to the S. African Museum, Cape-town.

We left Cape-town on the 15th August, in H.M.S. 'Cossack.' As soon as we cleared the bay, I noted *Daption capensis, Procellaria æquinoctialis, Diomedea melanophrys,* and a little blue Petrel, which I take to be *Prion vittatus.* This last never came within 100 or 150 yards of the vessel during the whole voyage (for we frequently saw them), but skimmed about among the waves, generally in the trough of the sea, which was at times very rough. I never saw it alight on the water, as did *Daption capensis* and *Procellaria mollis,* which joined us before we lost sight of land. *Procellaria æquinoctialis* left us on the second day (lat. 37° S., long. 22° E.)*, and we saw no more of it. It was replaced by *Proc. gigantea* in lat. 41° S., long. 46° E. In its company arrived *Diomedea fuliginosa* (the Black Albatros), from which it is easily distinguished by its flesh-coloured bill and more rounded tail, whereas *D. fuliginosa* has a black bill and a cuneiform tail.

In these latitudes we were also joined by *D. chlororhyncha* in abundance, *D. melanophrys* still sticking to us, and by a single specimen of *D. exulans* in the brown plumage of the first year. *Prion vittatus* (?) and *Daption capensis* were also with us, the latter being abundant. We caught very many with strong thread, by letting it trail astern with a cork at the end of it. The birds fouled the line, which twisted in their wings and thus rendered them helpless. As soon as one was entangled it fell in the water, and the rest immediately clustered round it, as the sailors declared, for the purpose of eating their wounded comrade.

---

* All the latitudes and longitudes given refer to our position at noon of each day,

Procellaria gigantea and *Diomedea melanophrys* took the hook freely when we were not going through the water. None of these birds that I skinned exhibited the usual fatness of sea-fowl, and the ovaries were not in the least enlarged. I thought the breeding season had not begun; but H. E. Sir G. Grey considered that they had passed it, and were feeding their young, which would account for their lean condition. Doubtless they all breed on the islands hereabouts—St. Paul's, Amsterdam, Kerguelen's Land, &c.; but it must be very cold work, for though we are now in what may be called the spring, still we have very severe weather and frequent storms of hail, snow and sleet.

Lat. 42° S., long. 85° E.—This morning a large bird of a deep-brown colour hovered once or twice round the ship. I at first thought, from its heavy flapping flight and rounded wing, that it was a land-bird, but it suddenly pursued some of the Petrels with the unmistakeable flight of the *Lestris*. It then settled on the water far astern, and presently rose again and went away out of sight westward (towards the islands). I conjectured it must have been the *Lestris antarcticus*, which I see, according to Dieffenbach, is found in New Zealand; and on describing it to H. E. Sir G. Grey, he agreed with me. Being the 1st of September to-day, it *ought* to have been *Perdix cinerea*!

There is also to-day a black or deep-brown bird occasionally about, which must be a *Puffinus*, judging from the falcate wing and the general appearance when compared with other *Procellariidæ*.

Lat. 43° S., long. 107° E.—The small blue Petrel (*Prion vittatus*?) is very abundant here, but never comes near the ship. This species may be known by the W-like mark on the back when the wings are extended in flight.

Lat. 44° S., long. 138° E.—Birds in sight to-day—*Dapt. capensis*, *Proc. mollis*, *P. glacialis* (one specimen), *Prion vittatus* (?), *Proc. gigantea*, *Diom. exulans* (young), *D. chlororhyncha*, *D. melanophrys,* and *D. fuliginosa.* *Daption capensis* dives readily; *Proc. mollis* does not. I have seen *D. capensis* drop suddenly on the water, and dive under instantly. It will also throw its tail up like a duck, and fish up bits of food from a slight depth.

16th September. Running along the south coast of Van Diemen's land.—*Daption capensis* is here in vast numbers; there must have been 200 round us at a time. *Proc. mollis* nearly gone from us. *Proc. glacialis* (one specimen) came close under the stern, and we nearly caught it several times. The *Puffinus* before named, as also *Proc. gigantea* and *Diom. fuliginosa,* occur sparingly. *D. exulans* (two adults) paid us a visit, and spent the day with us; and two little *Thalassidromæ* patted over the water some way astern.

September 22. Halfway between Van Diemen's Land and New Zealand.—*Puffinus* ——? very plentiful. H. E. Sir G. Grey says they are the "Mutton Bird*." *Diom. exulans* and *D. melanophrys* very common. *D. chlororhyncha* has, I think, quite left us: it may be known at once from *D. melanophrys* by its head being of a *slate colour,* this part in *D. melanophrys* being white. *Daption capensis* and the little *Thalassidroma* are abundant. One specimen of *D. fuliginosa* has been with us all day; and now and then *Prion vittatus* and *Proc. mollis* appear.

September 24.—Off New Zealand (25 miles from land) two Gannets passed the ship—the first we have seen; and a Skua (*Lestris antarcticus*) flew round us yesterday. All the birds have left us but the *Daption capensis,* and that is scarce.

September 25. Steaming along the coast of New Zealand.—*Thalassidroma* ——? very plentiful. Flocks of a *Procellaria,* slate-coloured with dark markings. Gannets common, as also *Prion vittatus.* *D. melanophrys*? or an allied species (I think it looks smaller) sitting on the smooth water. Between the "Poor Knight's Islands" we steamed through large flocks of a curious little diver about the size of a quail, black and white, with apparently sharp-pointed, short bills. They dived under the ship, came up close under our counter, and then rose and flew just like Quails. Sir George says he knows them well, but cannot recall the name; he sent them to Mr. Gould some years ago, and I think I remember them being figured in his 'Birds of Australia.' Sir George says they are very local, this being their chief habitat; we saw no others either before or after passing these islands*.

---

* The "Mutton Bird" of Bass's Straits is *Puffinus brevicaudus,* Gould, B. Austr. vii. pl. 56. See 'Ibis,' 1859, p. 398. In the heading of Mr. Elwes' article it is erroneously named *P. obscurus.*—Ed.

September 26.—We anchored last night under Rangitato, a large volcanic island in the mouth of the bay, and early this morning steamed to our berth off the town of Auckland. I saw two Gulls, one species much resembling the black-backed variety in Table Bay, but still I think different; also a Tern of some kind. The Gulls are common, and I see them inland about the fields.

In my next communication I hope to be able to say something of the land-birds round the town. As yet I have not been out with my gun, but there seems a dearth of specimens. I see a Kingfisher on the beach, and two small birds among the bushes in the ravines.

Auckland, New Zealand, Oct. 7th, 1861.

XIV.—*Observations on the Birds of the Western Districts of the Province of Nelson, New Zealand.* By Julius Haast.

[Mr. Haast's lately published Report of his expedition into the western districts of the province of Nelson, in the Middle Island of New Zealand†, contains an interesting chapter of observations on the animals noticed during the route, from which we extract the portion relative to the birds. After speaking of the paucity of Mammals‡, Mr. Haast continues as follows:—]

"The only living objects which give animation to these solitudes are birds. Amongst them we may assign the first place to the White Crane (*Herodias flavirostris*). This magnificent bird lives principally in the plains, where the rivers, flowing over shallow shingly beds, afford it sufficient opportunities of fishing. Sometimes it is observed sitting motionless on the top of a high tree near the water's edge, and it is really beautiful to see its graceful form and snow-white plumage sharply defined against the deep-blue sky. It is very difficult to approach it, as it is very shy, and takes to the wing at the least noise. The Bittern (*Botaurus melanotus*) and the Grey Crane (*Herodias matuka*) are also occasionally met with. In the plains, too, we find large numbers of the Paradise Duck (*Casarca variegata*), generally in pairs together, but sometimes in large flocks, breaking the stillness of the scene by their shrill cries. The most abundant member of the family *Anatidæ*, however, is the Whio, the Blue Duck of the settlers (*Anas malacorhynchus*). It is found in all the rivers, and is easily killed. It appears to prefer shady places and the deep pools formed in the gorges of the streams and rivers, but is also found in the plains. In the open districts, and on the outskirts of the forests, we also find two members of the Falcon family. The largest of them, the *Falco harpe**, is a stupid bird, remaining quietly perched on a branch whilst the traveller approaches. It is not so bold and pugnacious as the smaller *Falco brunneus*, which is frequently met with, and which, whilst rearing its young ones, fearlessly attacks any intruder who may happen to come near its nest. One day, walking along near the margin of the forest in Camp Valley, my hat was suddenly knocked off my head, and at the same time I heard a shrill cry. On looking up I found it was one of these courageous little Sparrow-hawks which had attacked me, and which, after sitting for a moment or two on a branch, again pounced on me; and although I had a long compass-stick in my hand, with which I tried to knock it down, it repeated its attacks several times. The presence of my whole party even did not intimidate them, and they frequently exhibited their courage by attacking us. We met with another instance of the courage of these birds in the Matakitaki plains. A White Crane of large size, standing in the water, was attacked by three of them at once, and they made frequent and well-concerted charges upon him from different quarters. It was admirable to behold the Kotuku (White Crane), with his head laid back, darting his pointed beak at his foes with the swiftness of an arrow, whilst they, with the utmost agility, avoided the spear of their strong adversary, whom at last they were fain to leave to fish unmolested. Another day, in the same neighbourhood, a Cormorant (*Graculus varius*) passing near a tree on which two of these Sparrow-hawks were sitting, they instantly pounced upon him, putting him to hasty flight with a shrill cry of terror, followed closely by his smaller but fierce foes, and all three were soon out of sight. In speaking of the Cormorants I may add, that there are several species that exist all along the rivers and sea-coast; they are capital fishers, and one day I was witness how well they understood how to procure their food. It was near the spot where one of the northern spurs of Mount Murchison slopes down to the Buller, which here forms small falls and rapids. A Cormorant was standing on an isolated rock, round which the foaming waters dashed down, and I was not a little surprised to see him jump down into the white foam. In the first instance I thought he would not get out again, but would be dashed to death by the whirling waters; but soon he re-appeared, swimming rapidly towards the edge, and then flying on to his old observatory to continue his sport. It is probable that small fishes are taken down by the falls, and, being stunned by the force of the water, are easily caught by the courageous bird. This is a new proof that nature has given to every animal the necessary physical strength to contend with the elements in which it has to look for its subsistence.

---

* No doubt the Diving Petrels, *Puffinuria urinatrix*, figured in Gould's 'Birds of Australia,' vii. pl. 60.—Ed.

† 'Report of a Topographical and Geological Exploration of the Western Districts of the Nelson Province, New Zealand, undertaken for the Provincial Government.' By Julius Haast, Esq. Nelson, 1861. 1 vol. 8vo. 150 pp.

‡ Only two Mammals are known as really indigenous to New Zealand, both Bats, *Scotophilus tuberculatus* and *Mystacina tuberculata*.—Ed.

---

* *Hieracidea novæ zelandiæ.*—Ed.

"The Quail (*Coturnix novæ zelandiæ*) is still very abundant upon the grassy plains of the interior; at every moment it is met with rising close to the foot of the traveller; and it is perhaps the best sign that not many dogs exist there, as they would otherwise have been already destroyed. But amongst all the birds which I met with, none is in so great numbers as the Weka (*Ocydromus australis*), belonging to the family *Rallidæ*, and commonly called the Wood-hen. It is found everywhere, on the grassy plains and in the forest, as well as near the summits of the mountains amongst the subalpine vegetation. It is omnivorous, and seems to be the true scavenger of the country. It despises nothing. Bread, flour, bacon, yellow soap, and even the remains of its own kindred, are greedily devoured. They quickly find out a camp, where their instinct leads them in search of food. The woods resound with their call, which consists of two notes in the octave, of which the lowest is the first given. We caught a great many, as a valuable addition to our stock of provisions. The capture is generally made by means of a flax snare at the end of a stick, keeping behind it a smaller bird, at which they run pugnaciously; and even when there is no time to take them in this way, no small bird being at hand, they come to the snare, attracted by a branch rattled on the ground behind it, accompanied by an imitation of the notes of one of the smaller birds. We have even caught them by the hand, by simply exhibiting a dead Robin. The Weka lays four to five eggs, yellowish white with chocolate-coloured spots, of the size of a fowl's egg, in a nest prepared rudely with a few dead leaves and dry grass in a flax-bush. It breeds in the months of November and December, like all the other birds of New Zealand, with the exception of the Kaka (*Nestor meridionalis*), which breeds only at the end of summer—say at the end of February and beginning of March. The Weka has great affection for its young ones, and it was often with the aid of one of them, which were easily caught, that we secured the parents; a note of distress from the young bird invariably bringing the old ones to its assistance, when they were easily caught in the snare held in readiness.

"On the summits of the mountains I met with a very shy bird, closely resembling a Plover (*Charadrius*), which till then I had never seen. On the lakes, besides the several inhabitants before enumerated, we found the Crested Grebe (*Podiceps cristatus*?), of which only very little is known. Another inhabitant of the plains in former years was the Kakapo (*Strigops habroptilus*) or Night-Parrot; but it seems that it is now nearly extinct there, and that it has found a refuge in the wild mountain regions unmolested by man and dog. In former years the Marnia plains were a celebrated hunting-ground of the Maories for these birds; but we did not even observe their tracks in the sand, or hear their call; and only in the upper Mavhera-ti have a few of late been observed. The Kakapo lives in holes burrowed in the ground, where it remains during the day, coming out in the night: it feeds on berries and roots. Although able to fly, it rarely or never takes to the wing, as the natives assured me, who in former years often hunted it. For this purpose they generally went to the plains when the berries of the Tutu (*Coriaria sarmentosa*) were ripe, which are a favourite food of that bird, selecting fine moonlight nights. They ran them down partly with dogs, or even killed them with long sticks upon the Tutu-bushes. Another mode was, when they had found out their holes, to introduce a long stick into them, to which they had fastened several strong flax-snares; feeling the bird with the end of it, they began to twist the stick so as to bring some part of the bird into the snares, and thus drag it out. The call of the Kakapo, heard during the night, very much resembles the gobble of the Turkey. In the forest a great variety of birds is to be observed, but it would lead me too far were I to enumerate them all. Some of them are seldom seen, but are everywhere to be found; as, for instance, the Owl (*Athene novæ zelandiæ*)—the "More-pork" of the settlers—the two melancholy notes of which are invariably heard one hour after sunset and one hour before sunrise. Another inhabitant of the forest and rocky mountain-sides is the Kiwi (*Apteryx australis*), which is still abundant in many spots, and, judging from their different calls, of various species. As unfortunately I had no dog with me, I was not able to procure any specimens of them; but, after what I could observe on the summits of Papahaua, the tracks in the snow showed me that the native description of a large Kiwi, like a Turkey, could not be well exaggerated. The noisy Kaka (*Nestor meridionalis*) plays a conspicuous *rôle* in the forest. It is a gregarious bird, perching generally on the highest trees; but as soon as the assembled flock hear a noise unknown to them they approach, amusing the traveller by their various quarrelsome notes and shrieks. If in shooting after them one only is wounded so that it may be secured, it is an easy matter to shoot one after the other, as they always come back when they hear the cry of their wounded companion.

"It is true that the New-Zealand songsters cannot be compared with the European singing-birds; but their music has also its charms, and it is a moment of delight for the traveller to listen to the concert of all the different birds when the morning dawns. Amongst them the Kakorimaka (*Anthornis melanura*) is most conspicuous. I can only compare their united tune, as Captain Cook has already done with great justness, although each *Anthornis* has only a few notes, to well-tuned chimes; and I was never tired of listening to their morning concert, which generally ceases when the jealous Kaka begins with its discordant screams. The Tui (*Prosthemadera novæ zelandiæ*) is another songster which assists in the performance of the concerts. Two other birds are very numerous. The first is the Kakako (*Callæas cinerea*), the New Zealand Crow; generally a pair is together. They remain in the lower grounds, and are not frightened at man; so that they can be easily secured. Their musical although melancholy notes, which harmonize with their sable hue, resounding through the tranquil woods, give a certain charm to their appearance. Another and a more gay fellow, belonging to the family *Turdidæ,* is the Piopio (*Turnagra crassirostris*), the Thrush of the settlers. It is a very inquisitive and social bird, generally making its appearance as soon as the traveller halts. The beautiful Pigeon (*Carpophaga novæ zelandiæ*) is also abundant in the lower countries, where the vegetation does not principally consist of black birch (*Fagus*). Where this tree is predominant the birds are not so numerous. This bird is so stupid as often to remain sitting upon a branch until the traveller has cut a long stick and passed the flax-snare at the end of it round its neck.

"Amongst the small inhabitants is one which, by its tameness, always gives animation to the camp; it is the Totoara, the New Zealand Robin, which is the first to welcome the explorer in the wilderness, and which remains steadily near the camp. Gravely does it look to the doings of men! I observed how strictly these Robins maintain the right of priority. The second comer was always fought till he went away; and the first remained on the spot till he was killed for fishing or snaring purposes, when the second one very soon took his dangerous place. At first it is perfectly fearless, and I have seen one of them sit on my hand, with which I held my paper when sketching, and peck quietly at it. There are still two others, which are always near the tents: the fan-tailed Flycatcher, belonging to the family *Muscicapidæ,* very fond of the neighbourhood of man, and the New Zealand Wren (*Certhiparus maculicaudus*), both never tire of flying and hopping round the tents. Of the latter I observed several species in the interior, which will prove to be undescribed. On the sea-shore, near the mouths of rivers, we again meet with the Paradise Duck; but the most numerous bird all along the coast is the Torea (*Hæmatopus picatus*). It is pleasant to see this red-legged and -billed fellow run along the shore under the crest of the waves, picking up the mollusks and small fishes which are brought by them or remain behind when the waves recede. At high-water they generally assemble together, as there is not such good opportunity for fishing. Although rather of a fishy taste, they offer to the traveller who is in the possession of a gun sufficient material for a meal when he is in want of it. Another interesting sea-bird belonging to the Gulls is the Karozo, which skims rapidly over the surf, seizing the shell-fish, principally *Venus intermedia,* on which it lives. Being unable to open the shells with its beak, nature has taught it another way. I very often observed how this bird rose over the rocky shore, and, arriving at an altitude of 60 to 100 feet, let the shell fall, so that it would break upon the rocks below. Another bird, belonging to the Gannets, is also very abundant; it has a very graceful flight, sailing high above the water on expanded and almost motionless wings. Perceiving its prey, it goes down like an arrow. I did not observe any bones of the Moa (*Dinornis,* &c.), although the natives at the mouth of the Grey assured me that in the swamps near Lake Hochstetter a good many occur."

XV.—*On the supposed Gular Pouch of the Male Bustard* (Otis tarda, *Linn.*). By ALFRED NEWTON, M.A., F.L.S.

AN article by Dr. Gloger, of Berlin, lately published in the 'Journal für Ornithologie,' and alluded to by the Editor in the last Number of this Magazine ('Ibis,' 1862, p. 83), has prompted me to transmit a reply to the attack made by that talented writer on "three English anatomists and naturalists." The reason why I have felt myself bound to answer the charges thus adduced by Dr. Gloger is not only that the subject of his paper is one in which I have for some time past been peculiarly interested, but also that, of the three gentlemen whom he especially selects to hold up to ridicule, two have passed away from this world, and these two I had the honour to count among my earliest ornithological friends. On behalf of the third I have not attempted to speak. The situation Professor Owen holds in the scientific world is, by his assailant's own admission, so lofty, that nothing Dr. Gloger says by way of detraction, or that I could allege by way of defence, would in the least affect it.

Having then, with the kind assistance of my friend Dr. Hartlaub, done what I could to repel the virulent and uncalled-for invective of Dr. Gloger upon the late Mr. Yarrell and the late Mr. Mitchell, I shall not here say more about it, for I desire to allay bitter feelings rather than to excite them. But I consider the question of the existence or non-existence of a gular pouch in the male Bustard one of a nature so curious, that I do not scruple to cite somewhat fully the singularly conflicting evidence on the subject, as given by various observers, believing that the readers of 'The Ibis' cannot fail to be interested in it.

According to Schneider (Reliqua Librorum Friderici II. Imperatoris, &c., Lipsiæ, 1788, i. p. 34), the Emperor Friedrich II. noticed the "grossum collum" possessed by both sexes of the Great Bustard, and especially by the males "tempore coitûs," as did also, in 1681, Sir Thomas Browne. This learned man, whose knowledge of natural history was so far beyond that of his contemporaries, further remarks (Works, Wilkins' edition, i. p. 311) that, "as a Turkey hath an odde large substance without, so had this [*Otis tarda*] within the inside of the skinne." Towards the end of the seventeenth century, six examples of the Great Bustard, all of them males, were dissected by order of the French Academy of Sciences. Perrault, the examiner, makes no mention of the existence of a gular pouch in any of them; and his general observations, which are given in minute detail (Mém. de l'Acad. Roy. des Sciences, tom. iii. 2de partie, pp. 99–109), fully accord, as Mr. Yarrell has rightly said, with what has since been noticed of the structure of the species. In 1688 (new style), a paper by Dr. Allen Moulen, containing some "Anatomical Observations in the Heads of Fowl," was communicated to the Royal Society of London. Among the species examined were Bustards (Phil. Trans. xvii. p. 714); but nothing like a gular pouch is described as having been found.

It is beyond all doubt that our knowledge of the supposed gular pouch in the *Otis tarda* is due to a British anatomist—Dr. James Douglas—whom Haller (Biblioth. Anatom. ii. p. 31) designates as "vir eruditus et solers, diligentissimus incisor;" and the first mention of the discovery known to me (for Douglas, it seems, did not live to announce it himself) was made in 1740, by Albin (Nat. Hist. B. iii. p. 36), in the following vague terms: "Dr. Douglas has observed in the Male [of the Great Bustard] two Stomachs, one for the Food and the other a Reservatory for Water to supply them, they feeding on dry Heaths remote from Ponds and Rivers." In 1747, a fuller account and also a figure* of the organ were given by Edwards (Nat. Hist. B. ii. tab. 73). Writing of *Otis tarda*, he states, "But what is most surprizing in this Bird was first discovered by the late James Douglass, M.D., Fellow of the College of Physicians; it is a Pouch or Bag to hold fresh Water, which supplies the Bird in dry Places when distant from Waters; This Bag is represented blown up by the letter A. I poured into it, before the Head was taken off, full seven Wine Pints (which about equals seven Pounds of our common Weight) before it run over. B. shows the Wind-pipe. C. the Throat or common Passage of the Food. This Bag is wanting in the Hen."

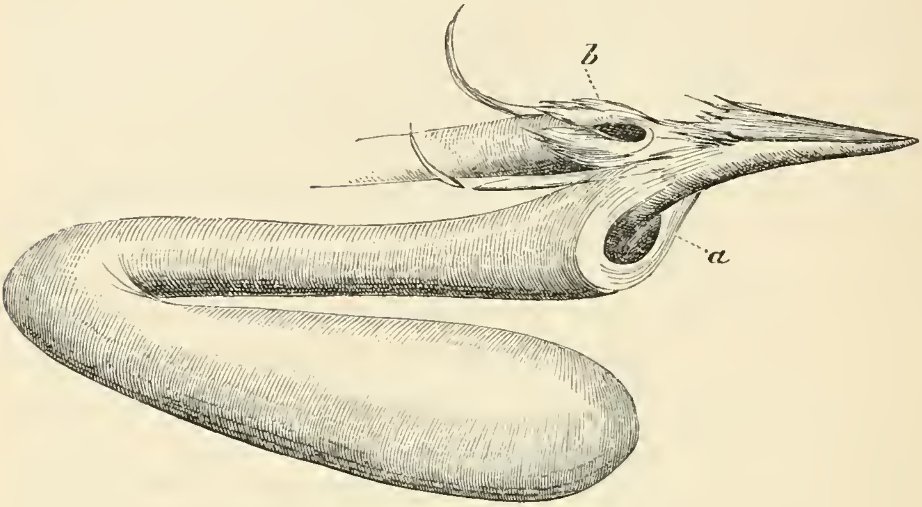
---

* I have not thought it necessary to introduce here a copy of this figure, as it has been so often repeated in other works, many of them easily accessible; for instance, Daniell's 'Rural Sports,' Bishop Stanley's 'Familiar History of Birds,' besides Bewick's and both the first and second editions of Yarrell's 'British Birds.'

A few years afterwards, in 1753, this account was almost literally translated and the figure copied by Seeligmann (Sammlung verschiedener Vögel, iii. tab. 41), but without mention of Edwards's name, and thus made known to German ornithologists. There is no need for me to quote the passage here. The next author who alludes to the subject is Pallas in his Journal, under date of May 28–31, 1772. At this moment I can only refer to the passage in the French translation by Mons. Gauthier de la Peyronie (Voyages de Pallas, iv. p. 309), which, though not very accurate in some places, is sufficiently so here. Of the Great Bustard it is said, that "Cet animal a un petit trou sous la langue, qui sert d'ouverture à une bourse aqueuse, qui est de la grosseur d'un œuf d'oie." Though I cannot doubt that Pallas was aware of what had been published in England, and republished in Germany, this statement has the appearance of being, and in all probability was, founded on his own independent observation. In 1781, Daines Barrington (Miscellanies, p. 553) speaks of the discovery of Douglas, stating that Sir Ashton Lever had failed to find the pouch in a female bird; and adding that "a gentleman long resident at Morocco, where they frequently fly their hawks at bustards, hath also informed me that the cock makes use of this reservoir of liquor against these assailants, and commonly thus baffles them." In illustration of the statement last mentioned, I may refer to the account furnished by Mr. Tristram to the first volume of this Magazine ('Ibis,' 1859, p. 285), and perhaps also to a remark of Dr. Weissenborn (Mag. N. H., new series, 1838, ii. p. 243).

Several years ago, from a note in one of Bechstein's works (Gemeinnützig Naturgeschichte Deutschlands, &c., p. 1434), I became aware of a paper by Bloch on this subject; and though I suspected it would prove important, it is only lately, and that through the kind intervention of Dr. Albert Günther, that I have obtained a sight of it, and learned its true value. I do not think I exaggerate this in saying that it affords the strongest evidence in favour of the existence of the supposed gular pouch that I have met with. In 1782, then, Bloch published an account of the disputed structure, accompanied by a plate, in which the opening under the tongue is most distinctly represented

(Schriften der Berlinischen Gesellschaft naturforschender Freunde, iii. pp. 376–7, tab. 8). I here insert a reduced copy of the figure, and I must quote from the article at some length:



"Bey diesem grossem Vogel *** siehet man einen Sack unter der Haut am Halse, dessen Oefnung unter der Zunge sichtbar ist (fig. 7 *a*) [*Sic in origine, sed potiùs* 'fig. 2 *a*']. Er ist weit, war bey einem alten Hahn, den ich untersuchte ein Fusslang, und erstreckte sich von der Kehle bis an die Brust.

"In den pariser Denkschriften [*ut supra citatum*] treffen wir zwar eine umständliche Zergliederung dieses Vogels an; es ist jedoch darin dieses Sacks nicht erwähnt worden. Albin gendenkt seiner zuerst, allein, wie Catesby [*hic et infrà pro* 'Edwards' *errore captus*] behauptet, so hat man dem Dr. Douglas diese Entdeckung zu verdanken (*Seligmann's Vögel*, 3 Thl. t. 41). Wenn jedoch Catesby anführt, dass nur die Männchen allein mit diesem Sack versehen wären (*a. a. O.*), so widerspricht diesem meine Erfahrung; denn ich habe ihn auch bey einem Weibchen gefunden. Auch Herr Professor Pallas hat diesen Sack bemerkt (*dessen Reise*, 3 Thl. S. 220); wenn jedoch dieser genaue Beobachter sagt, dass er nur die Grösse eines guten Gänse eyes gehabt habe, so ist derselbe wahrscheinlich von einem jungen Vogel gewesen."

The author then proceeds to offer some considerations, which I need not extract here, on the probable use of this singular organ. What is most remarkable in the above is his statement that he had found it also present "in a female." Now there is a kind of witness well known to lawyers as one who tries to prove too much. In such a light Bloch seems to have been regarded by Schneider, who, in 1788, edited the Imperial work on Falconry, to which I before alluded. Here he (*op. cit.* ii. p. 9) observes, "Saccum gularem primus annotavit et pinxit in Otide vulgari Edwards Britannus; eundem deinde in mare vidit aquæque recipiendæ dicavit Cl. Pallas Itinerarii Russici t. iii. p. 220. Sed nuper demum exstitit vir doctus, El. Bloch, qui feminæ otidi eundem saccum communem assereret, in Scriptis Societ. Berolin. Amicorum Naturæ Curios. vol. iii. p. 376. Doleo me nondum potiri potuisse hac ave satis in his regionibus frequenti, sed captu difficili, quo ipse oculis meis de dubitatione hac virorum doctorum decernerem. Si mas solus sacco gulari gaudet, potest tum in amore eum forte inflare, ut collum intumescat. Contra si femina eundem habet, quod vix credo, alium tum eidem usum excogitare debemus." I can only stop to record my admiration of Schneider's cautious language. Between 1799 and 1805, Cuvier (Leçons d'Anatomie Comparée, publiées par Duméril), as quoted by Mr. Yarrell, dwelt at some length on the blood-vessels, glands, and cellular tissue of the neck in birds, but he does not refer to any peculiarity in the neck of the Bustard. In 1802, Montagu (Orn. Dict., *pagg. innumm.*) states that a preparation of the pouch "may be seen in Sir Ashton Lever's Museum." This celebrated collection was afterwards dispersed by sale, and I have never been able to ascertain what became of the specimen. It seems to me not at all impossible that it may have been the original preparation of Douglas, and it will be remembered that Barrington mentions Sir Ashton's name in connexion with the subject. Montagu, by the way, through an obvious slip of the pen, doubles the asserted capacity of the pouch, and then proceeds to show that its size must have been somewhat exaggerated. On this circumstance an anonymous writer, whom, from his thorough acquaintance with the subject, added to the quiet humour that he displays in its treatment, I imagine to have been the late Mr. Broderip, aptly remarks (Frazer's Magazine, No. 297, Sept. 1854, p. 339), that Montagu's strictures "look very much like making the giants first, and then killing them." In 1810, Tiedemann (Zoologie, ii. p. 398) repeats much that had been previously written on the question; and though he refers to Seeligmann's account, yet, as he carefully follows Bloch's accidental errors, his acquaintance with the former author was clearly derived only at second hand: I therefore forbear to quote what he says. In 1814, Sir Everard Home (Lectures on Comparative Anatomy, i. pp. 277–8) states that—

"The male bustard, in some particular species which I have examined, has a long bag which hangs down on the anterior part of the œsophagous as low as the middle of the neck, communicating with the mouth by an opening under the tongue, which appears to have a sphincter muscle. This bag was not met with in the young bustard, and is unknown to several very intelligent naturalists in Bengal, where the bustard is common and of several species."

Now this passage is not marked by that precision one could wish, and, from its similarity to an observation of John Hunter's, then unpublished, but which, as I shall presently show, was in all probability known to Sir Everard, leaves it open to doubt whether that noted plagiarist ever did examine a male Great Bustard for himself. In 1818, Vieillot (Nouv. Dict. d'Hist. Nat. &c. xxiv. p. 286), from the accounts of Perrault and Pallas, already given, compiled a description of the tongue, palate, and pouch of the *Otis tarda*. It contains no new facts, and I need not cite it here.

In the course of the ten years following 1821 appeared the great work of Meckel (System der vergleichenden Anatomie), of which, I regret to say, I have only been able to consult a French translation, though it is one which was published in 1838, by Drs. Sanson and Schuster, with the author's approval. In this (Traité Général d'Anat. Comp. viii. p. 236) Meckel is represented as saying:—

"Chez le mâle, on voit descendre de la face inférieure, au-devant de la langue, un sac fort spacieux et à parois minces, qui, placé immédiatement au-dessous de la peau, occupe toute la longueur du cou, et dont la cavité présente, chez les adultes, assez d'ampleur pour contenir deux litres d'eau. Selon MM.

Bloch et Tiedemann [*ut suprà cit.*], ce sac serait propre non-seulement au mâle, mais encore à la femelle. Mais il faut nécessairement, que ces observateurs se soient laissés aller à quelque illusion, puisque j'ai examiné dix sujets femelles, qui ne m'en ont pas présenté le moindre indice. Je dois donc adhérer à l'opinion de MM. Douglas et Home [*ut suprà cit.*], qui avait été déjà hypothétiquement émise par Schneider [*loc. cit.*], et admettre que cet organe ne se rencontre que chez le mâle.

"Quant à l'autre assertion de M. Home, qui établit que le sac en question n'existe pas chez les jeunes sujets, je n'ai pas été en mesure de la vérifier; cependant je ne serais pas loin de penser qu'une jeune femelle ait été prise, par cet auteur, pour un mâle; une semblable méprise, mais en sens inverse, semble avoir induit en erreur M. Tiedemann."

It is noticeable from this, that neither Meckel nor his translators assert that they ever found the pouch at all; and that such mistakes as they attribute to Home and Tiedemann are possible on a cursory examination, I think, is quite likely. M. de Rochebrune (Trans. de la Soc. Linn. de Bordeaux, iv. p. 167) has remarked, that when the female has come to her full growth, at the age of from three to four years, she exhibits the same lateral plumes from her chin as does the male, but in some degree less developed. The hint thrown out by Sir Everard Home appears to have been taken by ornithologists in India; for, in 1832, Colonel Sykes (Proc. Comm. Sci. & Corr. Zool. Soc. ii. p. 155), speaking of "*Otis nigriceps*"—*Eupodotis edwardsi* of Gray—states that the male is "supplied with the remarkable gular pouch common to the *Otis tarda*." And to have done with this part of the subject at once, it is better to say here, that some twenty years later, in 1855, Lieutenant Burgess also mentions (P. Z. S. 1855. pp. 32,33), on the authority of Mr. A. F. Davidson, that the male of the same species, about breeding-time, "is fond of mounting some elevated spot, and then strutting about with the tail erected and spread, the wings drooping, and the pouch in the throat inflated with air and looking like a large bladder." This writer further adds, in corroboration of the assertion, that another informant had told him that "he had seen a Bustard with a white-looking bag hanging below the neck." I may also state, that from Mr. J. H. Gurney I learn that the late Mr. Frederick Strange some years ago published in an Australian journal an account of the large Bustard of that country (*Eupodotis australis*, Gray), in which he asserted that that species was also provided with a gular pouch. I have made various efforts to ascertain the name of the publication—I believe an illustrated newspaper—in which this statement occurs, but hitherto without success, and I shall be greatly obliged to any one who can give me a reference to the communication.

In 1834, J. F. Naumann printed the results of his own observations, and those of Nitzsch, on this subject. The latter is quoted (Naturgesch. der Vögel Deutschl. vii. p. 10) as saying:—

"Die grösste, schon seit langer Zeit bei *O. Tarda* beobachtete, aber meines Wissens bei andern Arten bis jetzt noch nicht bestätigte, anatomische Merkwürdigkeit dieser Gattung ist ein grosser häutiger, unter der Zunge geöffneter Sack, welcher vorn unmittelbar unter der Halshaut vor der Luftröhre liegt, und bis zum Gabelknochen herabsteigt, aber, wohl zu merken, sich bloss beim Männchen findet. (Er fehlte bei den von mir untersuchten Weibchen und Männchen der *Otis Tetrax*.) Der Zweck dieses sonderbaren, bei keinem Vogel ausser der Trappengattung wahrgenommenen, Organs ist noch keineswegs ermittelt." He then goes on to say that the male of the Great Bustard has another distinctive character, not possessed by the female, namely, a small "Schlundkropf;" but this, however interesting, is foreign to my present purpose.

Naumann himself refers (*tom. cit.* pp. 20, 21) to the pouch in the following terms:—

"Ganz ausserordentlich merkwürdig ist der oben erwähnte häutige Sack oder sogenannte Wasserbeutel, welchen aber nur allein das Männchen hat. Dieser Beutel besteht aus einer dünnen dehnbaren Haut, fängt sich unter der Zunge zwischen den Kinnladen an, läuft vorn zwischen der Halshaut und der Speiseröhre herab, und ist mit dem untern Ende am obern Rande des Brustbeins befestigt. Seine einzige Oeffnung ist unter der Zunge, und sonst nirgends eine zu entdecken. Er hat, wenn er mit Luft oder Wasser angefüllt ist, oft eine einfache, sehr langgezogene Eigestalt; gewöhnlicher noch ist er aber am

Eingange enge; dann eiförmig erweitert und in der Mitte seiner Länge am weitesten; nachher wieder sehr verengert; dann wieder in Eiform, aber kürzer und nicht so stark wie oben erweitert und wie ein spitzes Ei geschlossen. Bei einem recht alten Männchen ist seine Länge ziemlich 14 Zoll; seine Weite am Eingange $\frac{5}{8}$ Zoll; dann in der Mitte, wo er am weitesten, $2\frac{3}{8}$ Zoll, dann wieder zu $\frac{5}{8}$ Zoll verengert und die untere Blase wieder $1\frac{3}{4}$ Zoll weit; alle diese Maasse im Durchmesser.—Er fasst eine ziemliche Menge Wasser, doch lange keine 8 Pfund, und man vermuthet, wiewol ohne Grund, er sei ein ähnlicher Wasserbehälter wie der des Kameels, um Vorrath trinken zu können; aber warum war er denn dem Weibchen nicht auch gegeben?! Wasser fand ich überhaupt darin nur sehr wenig, nicht einmal einen Esslöffel voll, vielmehr ihn meistens ganz leer, nur ein Mal einige Grassamen, welche zufällig hinein gerathen zu sein schienen. Er scheint mir überhaupt mehr ein Luft- als ein Wasserbehälter zu sein. Sein Zweck bleibt vor der Hand ein Räthsel, wie er dies schon lange war."

I have cited the above extracts in full, because, as will be seen by-and-by, they are those on which Dr. Gloger chiefly relies. I shall also presently quote Mr. Yarrell's comments upon them. Merely remarking, then, that no new information is to be gathered from Siebold and Stannius (Lehrbuch der vergleich. Anat. pp. 296–7), I pass on to an interesting statement, which was published in 1849, by Degland (Orn. Eur. ii. p. 73, *note*), and is as follows:—

"Je dois à mon honorable confrère, le docteur Dorin, de Châlons-sur-Marne, la connaissance d'un fait assez curieux et que je ne dois pas omettre. A l'époque des amours, il se développe dans le lieu même où s'insèrent les moustaches, une sorte de fanon, formé par une masse de tissu cellulaire graisseux, lâche, dont le volume est considérable, puisqu'il atteint et dépasse le poids d'un kilogramme. Cette sorte de fanon, qui occupe la partie antérieure et latérale du cou, est formée de deux masses qui se réunissent sur la ligne médiane, à partir de la naissance des barbes jusqu'au bas du collier. C'est au moyen de muscles fauciers assez développés que l'oiseau peut imprimer des mouvements à cette masse, et par conséquent relever ou abaisser les plumes allongées qui s'y implantent. A la fin de juillet, elle commence à s'affaisser, les plumes tombent, se renouvellent, si bien qu'avant la fin de septembre il ne reste plus rien de cette grande masse de tissu cellulaire."

In March 1848, Professor Owen made the preparation of the head and neck of a male *Otis tarda*, which is now in the Museum of the Royal College of Surgeons of London, and which, in 1852, he thus described (Cat. Physiol. Series Mus. R. Coll. Surg. 2nd ed. vol. i. p. 233) :—"772, Q. The head of a Bustard (*Otis tarda*), with the mouth and fauces exposed, showing the glandular orifices between the rami of the lower jaw, the tongue, glottis, internal nostril, and eustachian orifice. There is no trace of a gular pouch." I may add, that an inspection of this specimen, still exhibited to visitors, shows positively that in it there is no opening under the tongue, and also that the Professor did not conduct his dissection in the manner that has been attributed to him by Dr. Gloger. I now come to the article which has provoked the hostile remarks of that naturalist, and, in justice to Mr. Yarrell's memory, I am obliged to make some copious extracts therefrom, that my readers may decide for themselves whether or not he has been misrepresented. Mr. Yarrell (Trans. Linn. Soc. xxi. pp. 159, 160) says as follows :—

"I had long wished to have an opportunity of examining the body of a male Bustard to inspect the gular pouch described by Daines Barrington in his 'Miscellanies,' 1781, and by Edwards in his 'Gleanings in Natural History,' 1811, and from thence copied by Bewick and myself, but it was not until lately that an opportunity offered. About four years ago the Zoological Society obtained by purchase six or seven young Bustards from Germany. One of these birds, a male, died within a year: the body was examined by Mr. Mitchell and myself, but no gular pouch was found. This we then attributed to the youth of the bird. During the past summer of 1852, one of the males of these birds was frequently observed courting a female. * * *

"In the month of December last this male Bustard, believed to be four years old, unfortunately died, and Mr. Mitchell very kindly allowed me to examine this adult bird.

"To give an indication of what I expected to find, I may first quote the words in Edwards's 'Gleanings':—[Here follows the extract I have already given from that author, and which therefore I need not repeat.]

"My examination of the mature male Bustard, sent to me from the Zoological Society's Gardens, was confined to the neck only. I very carefully divided the skin, in a straight line from the union of the two branches of the lower mandible to the edge of the furcular bone or merrythought. On separating the edge of this skin on each side to the right and left, a thin delicate membrane was seen covering and firmly attached to the anterior surface of the trachea or windpipe, which lies close to the inner surface of the common skin. Separating the skin still wider, there was on each side of the trachea an elongated narrow column of membrane investing and attached to the blood-vessels and ordinary glands of the neck, and extended downwards was attached to the lateral branch of the furcula on its own side. The œsophagus inclines to the right side of the neck in its passage downward. There was no opening under the tongue; and I failed in various attempts to distend any part of the membranes below, either by fluid or by air.

"I was disappointed, and began to doubt the accuracy of my own investigation;" and Mr. Yarrell then proceeds to say, that it was only after turning to the accounts of Perrault and Cuvier, and taking Professor Owen's opinion—all of which I have before referred to—that he offered his statement to the Linnean Society. When I was in London the following summer, Mr. Yarrell was good enough to show me the preparation he had made, and on my own authority I can declare that in this specimen there was no trace of a gular pouch.

Mr. Yarrell's paper was read before the Linnean Society, January 18, 1853, and was printed a few months afterwards, I in the meantime having told him of the strong evidence in favour of the contrary opinion which was to be gathered from German authors. When, some two years later, he was preparing the third edition of his 'British Birds,' I again wrote to him on the subject, enclosing him translations of the passages from Naumann's work which I have already quoted; for I was well aware that he was but slightly acquainted with the German language, as he himself, and with unfeigned regret, was at all times ready to admit. Those who enjoyed his friendship were more disposed to admire the amount of scientific knowledge with which, in the intervals of a laborious life, he had stored his mind, than to wonder at there being some special branches of learning—however important these might be—of which he was ignorant. Mr. Yarrell in writing to me, under date January 11, 1856, says as follows:—

"I have now prepared my article on the Great Bustard for the printer. I have made no reference to the various objections of Naumann and others. The existence of an opening or no opening under the tongue . . . is not a matter of age, since of the two I examined one was a year and a half old, the other four years. The air-bag being of variable shape, in one case with a contraction in the middle, shows that it was not destined to hold water. Gravity would prevent any division. The small quantity of fluid is the seasonal secretion of the glands of the neck and the connecting cellular membranes, and lubricates the surrounding parts. . . . The grass seeds are equivocal; I cannot understand how they were to get there . . . such foreign substances would destroy the bird by inflammation."

Most of the above passage, it will be seen, has reference to the account given by Naumann of his own experience rather than that of Nitzsch; but in my letter of December 6, 1855 (which by favour of Mr. Van Voorst, Mr. Yarrell's executor, now lies before me, and to which it was in reply), I had especially mentioned the observations of the second-named observer as quoted by the first. But it is quite certain from what I have said that Mr. Yarrell was fully aware of the testimony to the existence of the gular pouch adduced by German naturalists, if not prior to the printing of his paper in the 'Linnean Transactions,' yet at least before the appearance of the last edition of his well-known work, in which (B. B. 3rd ed. vol. ii. pp. 445–449) his former remarks are inserted almost word for word.

In 1854, Dr. Crisp communicated to the Zoological Society the results of his dissection of three Bustards, one of which—a male, aged about two years and a half—had died in the gardens from an accidental injury. There is no notice of this paper in the Society's publications, but it will be found entire in Mr. Newman's periodical for that year ('Zoologist,' xii. pp. 4237–9). It is to be remarked that, at the time the communication was written, its author was not aware of the conclusions at which Mr. Yarrell had arrived. Dr. Crisp says:—

"My object in bringing the anatomy of this bird before the Society is in reference to the faucial pouch (so-called), figured in Mr. Yarrell's 'British Birds,' 1843, and in Professor Owen's article on "Birds," 'Cyclopædia of Anatomy and Physiology.' . . . On a careful dissection of the male bird, I find a thin membrane covering the whole length of the trachea, attached to the os hyoides above, to the œsophagus and cervical vertebræ behind, and to the clavicles and sternum below; its attachment to the trachea in front is very loose, and a probe can readily be passed between it and the trachea, and probably if air or water were introduced under it, a bag might easily be formed; but it has no connexion with the mouth or pharynx: nor can I conceive that it could be used for the purpose assigned to it; for if filled with water, it would materially interfere with the functions of the trachea and œsophagus. The presence of this membrane may perhaps account for the statement that this male bird is provided with a bag to contain water during the breeding-season. I do not deny the existence of such a bag, but I think its presence, in any case, is very doubtful. . . . In my dissection of the females I did not examine the neck, but it will be very interesting hereafter to ascertain whether the membrane I have described exists in the female Bustards and in other species of birds."

Dr. Crisp concludes by saying he had also examined Professor Owen's preparation in Surgeons' Hall, "which clearly shows that there is no communication with the pharynx and this supposed gular pouch;" and he has since informed me that he has dissected two or three other cock Bustards, and always with the same result.

Now thinking it quite possible, from my knowledge of the various opinions I have here arrayed, that the belief in this mysterious organ might have been prematurely abandoned, I was very anxious to investigate the matter for myself. I thought it highly desirable that an examination of a really old cock-bird should be made, and *that* at the season of the year when a structure of the sort might be supposed to be most fully developed. As our native race of Bustards has been extinct since 1838, or thereabouts, it was not easy to obtain such a specimen as I wished*. At length, through the kindness of a correspondent, Mr. Henry Smurthwaite, on the 12th of March, 1858, I received a magnificent old male *Otis tarda*, which had been killed near Leipzig a few days before, and had been forwarded to me with all possible speed. It weighed 23¼ lbs., and arrived in beautiful condition. With the greatest anxiety, I immediately looked under the tongue —no hole was visible; I took a probe—no opening appeared. Mistrusting my own powers of manipulation and dissection, I hurried off with it to London and secured the assistance of Mr. A. D. Bartlett, than whom there can scarcely be a more practical or more careful observer. We again searched for the opening under the tongue, and we came, I confess reluctantly, to the undoubted conclusion that in this specimen it did not exist. Mr. Bartlett then began to skin the neck—not in front, lest we should cut into the pouch, but from the axilla along the side to the corner of the mouth, laying bare the skin on either side: nothing like a pouch could be seen. Subsequently we separated the windpipe and gullet, and cut them off from the head. Then with a blowpipe it was easy to inflate the body by the œsophagus: by the trachea we failed to do so, as the air escaped through a broken wing-bone; but by blowing down the former we could swell out the whole body and neck wonderfully. After that, we cleared the skin away from the entire neck, and presently from the body. The neck was entirely clothed with cellular tissues in a most remarkable manner; they were very delicate, and so close to the skin that even when we grazed the roots of the feathers we occasionally cut them. On the blowpipe being inserted into one of the apertures thus made, a small bubble was immediately raised, which increased on greater power being applied, so as to form a considerable bag, perhaps three inches long. This peculiarity we found in every part of the neck; but it was plain, after one or two trials, that none of these bags existed of themselves, but were the result of the membranes being forcibly ruptured by the pressure of the air. Once or twice, on inflating the tissues, a sort of hour-glass form, such as is mentioned by Naumann, was apparent, but generally the bags were wider at the top than at the bottom. The examination took us between three and four hours, but at last the membranes became so dry that we had some difficulty in inflating a small cluster of bubbles to preserve as a specimen, which Mr. Bartlett still keeps. I can most honestly assert, that if I had any prepossession beyond the wish of arriving at the truth, it was in favour of the existence of the pouch; and I am sure Mr. Bartlett took all possible pains to find it. I had told him of much that had been written and of much that I had heard on the subject; among other things a communication I have not before mentioned here, made to me by my friend Mr. John Scales, to the effect that many years ago, when residing in Norfolk, he obtained a very large male Bustard, now one of the glories of the Museum at Norwich, from which he "dissected out the pouch." Mr. Bartlett, as my readers are no doubt aware, now holds the situation of Superintendent at the Gardens of the Zoological Society, and knowing that he has since had other opportunities of observation, I lately applied to him to furnish me with the results. His answer, containing, as I think, a most valuable suggestion, is as follows:—

---

* Most, if not all, of the stray examples which have of late years occurred in England appear to have been birds of the preceding summer, and, with two exceptions only, have been females. The very fine young male obtained near Hungerford, January 3, 1856, was preserved at Mr. Leadbeater's establishment (P. Z. S. 1856, p. 1). Mr. J. Wolley, who was then in London, at my request, questioned the man who skinned it, but no special search for a gular pouch was made. The breast-bone of this bird, with some of the membranes still adhering to the anterior part, is now lying before me.

"The interest I have felt with reference to the existence or otherwise of the pouch in the throat of the Great Bustard has naturally led me to examine with great care all the birds of that species that have come within my reach. Notwithstanding my want of success, and, I must add, my disappointment, I am of opinion that it would be unwise and unfair to deny that something differing from what I have found does occasionally exist. The fine large adult male obtained by you in March 1858, and in which we failed to find any opening under the tongue, or any natural pouch, on examination exhibited a structure capable of being easily converted into an appearance of that which is so carefully described by older authors. Since that opportunity, I have dissected two other males; one on February 14th, 1861. Dr. Albert Günther, Dr. Sclater, and Mr. E. W. H. Holdsworth were present on this occasion. The bird was a large male—not an old one, but probably in the second year, the whiskers being somewhat developed. The most careful examination, made by myself and the above-named gentlemen, failed to discover any opening under the tongue. Being perfectly satisfied on this point, an incision was made in the skin, beginning at the corner of the mouth; and, as in the specimen which you and I formerly examined, we found the same abundance of delicate membranes spread over the fore part of the neck and throat. By inserting the end of a blowpipe any number of cells could be inflated, the walls of which on the application of a little force would give way, and thus form one or more large cavities or bags. During the examination, a discussion took place with reference to the means whereby these membranes were distended in life—whether by muscular dilatation or by inflation,—and I must admit that this part of the subject has since appeared to me to require more consideration that I at first thought it deserved. On February 21st, 1861, another fine male Great Bustard, of about the same age as the last, was examined by me, and with precisely the same result as before. In conclusion, the only suggestion I can offer as a means of explaining the existence of a pouch in the fore part of the neck is that, in the males, some of the membranes surrounding the throat may occasionally be ruptured through the excessive distention that takes place during the violent paroxysms to which the birds are subject on the approach of the breeding-season. I have seen them with throats enlarged to an extraordinary extent, the pinions lowered to the ground, while the points of the primaries are crossed over their backs. In this distorted attitude they rush on and attack each other, affording one reason to imagine that these delicate membranes may at such a time give way, and produce the abnormal condition so often alluded to as being found in old males. As a further probability of this being the true explanation, I would call attention to the great diversity in size and shape of the so-called pouch, as given by different observers. The fluid contained therein would be also fully accounted for, if my hypothesis be correct."

Dr. Günther besides has favoured me with his observations on the dissection of one of these specimens, at which he, as Mr. Bartlett states, was present. Dr. Günther says:—"It was an adult male, as we saw by the plumage and by the testicles. There was no trace of a foramen below the tongue, or of any peculiar sac communicating with the cavity of the mouth. The œsophagus dilated into a large crop. The cellular tissue between the œsophagus and the trachea, and in the region above the furcula, did not show any development greatly differing from what we find in other birds." Dr. Günther, I believe, does not entirely assent to the probability of Mr. Bartlett's ingenious suggestion being the true explanation of the case, but says that "it is possible that an accessory organ, peculiar to the male sex, like this sac, may be found in some males, probably in the larger portion, and in others not. From this single example which I have seen, I should for the present draw the conclusion only that the sac is not constant in all specimens."

It has long been known in this country that at the death of John Hunter, in 1793, his manuscripts passed into the hands of Sir Everard Home, by whom they were burnt, after he had adopted from them many ideas, which he announced as his own, but fortunately not before copies of a considerable number of the papers had been made by Mr. Clift. At the death of this gentleman these copies came into the possession of Professor Owen, who in the course of last year published them. In this work (Essays and Observations on Natural History, ii. pp. 300, 301) occurs the following passage:—

"The cock-bustard has a very thick neck and long hairy feathers under his throat. On the fore part of his neck, reaching lower down than the middle, is a large bag, as large as the thick part of one's arm: it terminates in a blind pouch below, but has an opening into it at the upper end from the mouth. This aperture will admit three or four fingers; it is under the tongue, and the frænum linguæ seems to enter it; and it seems to have a sphincter. What the use of this is I don't know. In a young cock-bustard about a year and a half old, this pouch did not exist; therefore it becomes a question whether or not this is a matter of age."

I have now only to refer to Dr. Gloger's paper (Journ. für Orn. 1861, pp. 153–5), which has drawn from me this protracted reply. After the various sarcasms which he directs at English naturalists in general, and the three that he names in particular, one would expect that he would put forward some new considerations in his own justification. While he accuses Professor Owen, Mr. Yarrell, and Mr. Mitchell of destroying in the act of their examination the very structure they were looking for, he asserts that they knew so little of the question historically that they had no suspicion of the descriptions furnished by Nitzsch and others—with which I have already proved that Mr. Yarrell was acquainted—and he displays his own carelessness by stating that this gentleman's observations are printed in the publications of the Zoological Society. These charges being made, the original facts adduced by him are contained in the following paragraphs, which I quote in full, that those who have taken the trouble to follow this long story may judge for themselves of their value:—

"Wenn man einen Sack bei einem Thiere anatomisch untersuchen will, so fängt man bekanntlich damit an, dass man die Oeffnung sucht, mit welcher er nach dieser oder jener anderen Höhle od. dergl. ausmündet. Durch diese Oeffnung, welche sich bei der Trappe in der Mundhöhle unter der Zunge befindet, bläst man ihn dann auf, so dass man seine Lage und seinen Umfang deutlich erkennt. Dann kann man ihn leicht, ohne ihn zu verletzen, aus der ihn mitumschliessenden Halshaut, in welcher er wie eingesenkt festsitzt, herauspräpariren: wie der kürzlich verstorbene Inspector des hiesigen Zoologischen Museums, Hr. Rammelsberg, es mehrfach gethan hat. Getrocknet und mit Firniss gegen Insectenfrass bestrichen, lässt sich ein solches Präparat viele Jahre lang aufbewahren. Jene drei Engländer müssen also die gesammte Untersuchung auf ganz verkehrte Weise ausgeführt haben.

"Allerdings ist der Sack bei alten Männchen auffallender, und mithin noch leichter zu finden, als bei jungen: da er bis zu einem gewissen Grade mit den Jahren an Grösse zunimmt. Doch fasst er schon bei den jüngsten Hähnen, sobald sie erwachsen oder gar ein Jahr alt geworden sind, ein Viertelquart Flüssigkeit; bei älteren hat Inspector R. ein halbes Quart, ja bei manchen drei Viertelquart Wasser in denselben hineingegossen. Und zwar that er diess absichtlich noch an dem Vogel selbst, bevor er den Sack herauslöste: so dass also von zu weiter Ausdehnung desselben durch Aufblasen oder durch das Gewicht des Wassers nicht die Rede sein konnte. Einmal hatte ich das Vergnügen, der Präparation selbst beizuwohnen. Das Exemplar war gerade ein mehr als gewöhnlich alter, zur Fortpflanzungszeit erlegter Hahn; und sein Hals erschien, wie es dann verhältnissmässig bei allen geschieht, in dem Maasse angeschwollen, dass man ihn schon oben mit beiden Händen kaum zu umspannen vermochte. Unten wären Finger von mehr als gewöhnlicher Länge dazu nöthig gewesen. Die Wamme des fettesten Stieres von der berühmten Kurzhorn-Raçe hätte, der Haut- und Fleischmasse am Vorderhalse dieses Trapphahnes gegenüber, nur wie ein dünner und lockerer Hautlappen ausgesehen. Nach der Heckezeit verliert sich zwar diese gewaltige Anschwellung; der Kehlsack wird aber natürlich darum nicht kleiner, oder wenigstens nicht kürzer. Er schrumpft nur mit der Haut des Vorderhalses, in welcher er ja eben festsitzt, in gleichem Maasse zusammen, wie diese selbst. Auch bei jungen, kaum erwachsenen Hähnen, wie es der zu London untersuchte war, ist derselbe schon gross genug, dass es für keinen Anatomen ein Entschuldigung giebt, wenn er 'Nichts davon findet.'"

I trust I have said sufficient to show that modern English ornithologists have not made their investigations in the manner attributed to them by the author of the foregoing passage. They have in all cases commenced their researches by looking for the opening said to exist under the tongue. If they have not found it, it is assuredly because there was none such in the examples they examined. That these examples were not all young, undeveloped birds is also clear; but if any further evidence on this point is required, I would refer to the beautiful picture by Mr. Wolf (Zool. Sketches, pl. 45), which was drawn from an individual in our Zoological Gardens—an individual afterwards the subject of one of the examinations here mentioned, though of which is not certain. No one who looks at that picture—representing as it does the male *Otis tarda* in all the pride of lust—can for a moment doubt that the original was a truly adult, mature and fully developed bird.

In composing my reply to Dr. Gloger's article, which I have forwarded for insertion to the same Journal that contains his animadversions, I have chiefly had in view the vindication of Mr. Yarrell and Mr. Mitchell, though, from the nature of the subject, I have been forced to quote the statements which I have here repeated. In England, where those gentlemen were better known, the same necessity does not exist, and hence I can here with propriety sink the capacity of a controversialist, which only a sense of duty compelled me when addressing foreigners to assume, in favour of the more agreeable character of an inquirer after truth. This I do with greater readiness because I wish the questions (1) whether the cock Bustard naturally has or has not a gular pouch, and (2) if it has, at what age or in what way it originates, to be decided on their own merits, apart from those personalities which Dr. Gloger has introduced into the discussion. The questions indeed seem as far from being settled now as ever they were, and I must leave their determination to the ornithologists and anatomists of those lands in which the *Otis tarda* still abounds. We in this country have certainly done our best towards that end, but the difficulty of obtaining a sufficient number of fresh specimens is so great that we may well be excused from further researches. In Germany the case is entirely different; and I hope that my remarks, if they are honoured with a place in the 'Journal für Ornithologie,' may tend to elucidate the truth. I must state my opinion that dried preparations, such as those of the late Herr Rammelsberg, to which Dr. Gloger appeals, afford no certain evidence. As I have shown, we have had them already in England; nay, we have now at least one such, and that from a bird which certainly possessed no true gular pouch! All naturalists will be contented if a really scientific and unbiassed man—such, for example, as Professor Giebel of Halle—will institute new researches and report the results; and he lives in what, if I mistake not, is the very focus of the Great Bustard's German range.

It only remains for me to say that I have tried to compress my remarks into as short a space as I could. I have therefore not only refrained as much as possible from commenting on the different quotations I have given, but I have endeavoured to cite those authors alone whose statements seemed to deserve mention here, whether from the originality of their observations or for similar worthy reasons. It is very probable that I have omitted to name some: in this case I shall be most ready to receive additional information on the subject from any one. But I trust I have already adduced a mass of conflicting testimony sufficient to satisfy an impartial judge that there is much more in this interesting matter than can be set at rest by a few words, unsupported by any really new facts, in the tone which Dr. Gloger has adopted; and, for the honour of natural history and of naturalists, the questions I have above propounded require answers.

Elveden, January 29, 1862.

P.S. February 17, 1862.—Since the foregoing article was written, I have received the fifth part of the 'Journal für Ornithologie' for 1861, which was published on the 25th January last, and contains (p. 398) a short note from Professor Owen on this subject. The Professor conclusively shows that he has been egregiously misrepresented by Dr. Gloger, but is slightly in error when he states that the French Academicians found a gular pouch to exist in the Great Bustard. No mention is made by them, in the account to which I have referred, of the existence of such an organ in any one of the six male examples which they examined.

XVI.—*Five Weeks in the Peninsula of Florida during the Spring of* 1861, *with Notes on the Birds observed there.* By George Cavendish Taylor, F.R.G.S., F.Z.S., &c. (Part I.)

Owing to political events in America I was compelled to defer my expedition to Florida, last spring, to a much later period than I had originally intended, and the same causes brought it to an abrupt termination. Before leaving Baltimore, I was so fortunate as to meet, at the Smithsonian Institution at Washington, Dr. Henry Bryant of Boston. This gentleman, having passed three winters in Florida, was well acquainted with the localities where the most interesting birds were to be found, and gave me information respecting them which proved to be of great value. I think it better to include my notes of observation on the different species in the article which I propose to submit to the readers of 'The Ibis,' but I will commence by giving a list of the principal birds which came under my notice. The scientific names are from Baird's Catalogue of North American Birds:—

Turkey Buzzard.	Cathartes aura.
Black Vulture.	Cathartes atratus.
American Kestrel.	Tinnunculus sparverius.
Swallow-tailed Hawk.	Nauclerus furcatus.
Bald Eagle.	Haliaëtus leucocephalus.
Fish-Hawk.	Pandion carolinensis.
Mottled Owl.	Scops asio.
Barred Owl.	Syrnium nebulosum.
Parakeet.	Conurus carolinensis.
Ivory-billed Woodpecker.	Campephilus principalis.
Hairy Woodpecker.	Picus villosus.
Red-cockaded Woodpecker.	Picus borealis.
Pileated Woodpecker.	Hylatomus pileatus.
Red-bellied Woodpecker.	Centurus carolinus.
Gold-winged Woodpecker.	Colaptes auratus.
Ruby-throated Humming-bird.	Trochilus colubris.
Chuck-will's-widow.	Antrostomus carolinensis.
Night Hawk.	Chordeiles popetue.
Belted Kingfisher.	Ceryle alcyon.
King-bird (Bee Martin).	Tyrannus carolinensis.
Robin.	Turdus migratorius.
Blue-bird.	Sialia sialis.
Scarlet Tanager.	Pyranga rubra.
Loggerhead Shrike.	Collyrio ludovicianus.
Mocking-bird.	Mimus polyglottus.
Cat-bird.	Mimus carolinensis.
Brown Thrush.	Harporhynchus rufus.
Indigo-bird.	Cyanospiza cyanea.
Cardinal Grosbeak.	Cardinalis virginianus.
Towhé Bunting.	Pipilo erythrophthalmus.
Swamp Blackbird.	Agelaius phœniceus.
Meadow Starling.	Sturnella magna.
Boat-tailed Grakle.	Quiscalus major.

Crow Blackbird.	Quiscalus versicolor.
Blue Jay.	Cyanura cristata.
Florida Jay.	Cyanocitta floridana.
Common Dove.	Zenaïdura carolinensis.
Ground Dove.	Chamæpelia passerina.
Wild Turkey.	Meleagris gallopavo.
Quail.	Ortyx virginianus.
Sandhill Crane.	Grus canadensis.
Crying Bird (or Courlan).	Aramus giganteus.
Peal's Egret.	Demiegretta pealii.
Louisiana Heron.	Demiegretta ludoviciana.
White Heron.	Herodias egretta.
Great Blue Heron.	Ardea herodias.
Blue Heron.	Florida cærulea.
Green Heron.	Butorides virescens.
Roseate Spoonbill.	Platalea ajaja.
Black-necked Stilt.	Himantopus nigricollis.
Willet.	Symphemia semipalmata.
Spotted Sandpiper.	Tringoïdes macularius.
Long-billed Curlew.	Numenius longirostris.
Clapper Rail.	Rallus crepitans.
Coot.	Fulica americana.
Floridan Gallinule.	Gallinula galeata.
Scaup Duck.	Fulix marila.
Brown Pelican.	Pelecanus fuscus.
Floridan Cormorant.	Graculus floridanus.
Water Turkey.	Plotus anhinga.
Bonaparte's Gull.	Chroicocephalus philadelphia.

I leave Baltimore on the 13th of March. Charleston is my first stopping-place. Here I remain three days, principally to gain information concerning future movements. For this purpose I visit Dr. Bachman, who was in Florida last year. He gives most encouraging accounts of the birds, and expresses his wish to go with me; but having two sons serving in the batteries on Morris Island, is resolved not to leave Charleston until he has seen the inside of Fort Sumter. Four weeks later his wish will be gratified; but I do not see him again. From Charleston I go by railway to Savannah, and there take a steamer for St. John's River. I leave Savannah in the evening. During the night the steamer passes through a vast tract of swampy country, called Romney Marsh, which is intersected by many navigable creeks. These are in some places so narrow that poles have to be used to prevent us going upon the banks. Next morning I see Pelicans in abundance, a sure sign that I have at last reached warmer latitudes. The country is of the same marshy nature until we reach Fernandina, where we push out into the open sea, and, two or three hours before sunset, enter the St. John's River. Here Pelicans and various kinds of Wild Ducks are numerous. The latter are passing overhead, but at so great a height that I cannot distinguish the species. I also see Bald Eagles and several species of *Ardeidæ*. The steamer remains through the night at Jacksonville, and early next morning continues her voyage. Here the water is fresh, and there are no Pelicans. The banks of the river are low and densely covered with wood, of which Pine forms the principal part. All the trees are covered with long pendent moss, which gives them a highly picturesque appearance; but the river is too wide for scenic effect, and the steamer keeps in mid-channel.

I disembark at a small place called Orange Hills, on the east bank of the river, a few miles below Pilatka. Here I remain a few days to wait for the steamer which is to take me to Enterprise, and which only goes once a week. The house in which I stay is situated in a grove of orange-trees; hence the name. The trees are in full bearing, and the ground is covered with fruit. The climate is so mild that bananas and other tropical fruits will ripen. Strawberries are now plentiful, and have been so for the last month. Green peas and salad are also in season. I take my gun and go out to look for birds. I see Barred Owls, Crows, Robins, Blue Birds, Cardinal Grosbeaks, Ground Doves, Crow-Blackbirds, Meadow Larks, Kildeer Plovers, Kingfishers, Eagles, and various kinds of Hawks. Humming-birds are always to be met with about the flowers in front of the house. The orange-trees are never without Blue Jays and Common Doves. Quails are plentiful in the pine-woods where the trees have been thinned out and the grass and the scrub palmetto are able to grow.

But Mocking-birds are the most abundant of all. Florida might well be called the "Mocking-bird State." These birds are very destructive to fruit, especially grapes. I am told of a man living at St. Augustine who, during one summer, killed eleven hundred, and buried them at the roots of his grape vines. On the river I see flocks of Scaups, which they here call Roff Ducks. Anhingas are always sitting on posts or branches of trees which overhang the water.

On the 24th of March I go to Pilatka to be in time for the steamer for Enterprise, which leaves early the next morning. Pilatka is a small village of wooden houses, on a sandy savannah, frequented in winter by invalids from the Northern States, and, as I am informed by the initiated, abounding with fleas at all seasons. Pilatka is the "ultima Thule" of steamboats from Savannah and Charleston. The only steamer which goes higher up the St. John's River is the 'Darlington,' a high-pressure boat, which draws some four or five feet of water. The St. John's is fully a mile wide at Pilatka. I shall now continue my notes in the form of a journal.

March 25.—We leave Pilatka at daybreak. The river becomes much more narrow, but opens out again into Lake George. Thus far I see but few birds. There is a bar at the *débouchure* of the river into Lake George, with only just water enough for the steamer. South of Lake George, the river, until it leaves Lake Monroe, is very shallow, narrow, and winding. In places it is hardly wider than the steamer, and the curves are very sharp. The banks are covered with forest, in which the palmetto is very conspicuous, and, with the hanging moss, gives a tropical appearance to the scenery. Here and there the river opens out into lagoons covered with water-plants. Two of these lagoons are of some size. They are called Spring-Garden and Beresford Lakes, and as we pass through them the plants grow so thick that the water is hardly visible. I observe White-headed Eagles, numerous Ospreys, a pair of Swallow-tailed Kites, Coots, Gallinules, Cormorants, and Anhingas innumerable. Many of the latter are young birds, hardly old enough to fly.

Kingfishers are abundant; Great Crow-Blackbirds, here called Jackdaws, and Red-shouldered Blackbirds are flying here and there, and settling on the floating leaves. There are White Herons and White Egrets, the latter with yellow legs. I see no Ducks, and only a single flock of Parroquets, which fly screaming over our heads, and settle in a grove of pine-trees.

Tortoises are common, generally sitting on the bank or on the fallen limb of a tree; some of them are of large size, fully eighteen inches long. They are shy, and slip into the water before the boat comes very near them. Alligators of all sizes, from two to twelve feet long, are numerous. They are either floating on the surface of the water, or lying asleep in sunny spots on the bank. Often they let the boat come abreast of them before they will move. Captain Brock, the owner of the 'Darlington,' takes his post on the upper deck with a couple of rifles, and fires at every alligator that affords a fair shot. He is a good marksman, and hits several, which flounder about for a time and then disappear. He fired at one, about seven feet long, swimming ahead of the boat. The first shot struck it, and a second killed it dead. It turned over with its mouth wide open; the tail sunk, and the head remained on the surface.

I saw a very large Alligator floating belly upwards, with several Turkey Buzzards perched on it. It is probable that several are killed on every trip of the 'Darlington,' which passes twice in each week. The skins are of value, when they can be obtained, for making shoe-leather. The skin from the belly and lower part is what is used: that on the back is too hard. Brock said that the Alligators had greatly decreased in number in this part of the river from the constant shooting at them, and that now there was not one where ten might have been seen a few years ago.

In Lakes Jessup and Harney, higher up the St. John's, where no steamers navigate, they are still as plentiful as ever. They are said to be very destructive to pigs, but cannot do much harm in a country where the population is so scanty as in Florida. We see four or five flocks of Wild Turkeys feeding close to the river bank. The passage of the steamer does not appear to alarm them; but Brock and some of the passengers fire at and, I am happy to say, miss them, for if killed they cannot be recovered. The Turkeys do not attempt to fly, but run off with great speed.

I heard several passengers regretting that they had not brought guns with them. I observed that I did not care to shoot what I could not get or use when killed. Their reply was that they only shot for the fun of killing. Such people soon destroy all the game in a country, without benefiting any one. The Deer are greatly used up hereabouts, and the Turkeys are rapidly diminishing in numbers. But there are no settlements near this part of our route, which probably accounts for their presence and their tameness. From Pilatka to Enterprise is 110 miles, and we arrive at 6 P.M. The settlement consists of a good-sized hotel, the property of Captain Brock, and another wooden building, used as a court-house, built on the shore of Lake Monroe, only a few yards from the water. Next morning an alligator, about six feet long, is shot from the 'Darlington,' while lying on the beach, just in front of the hotel windows.

March 26.—I walk out at sunrise in search of birds, but as the locality is strange to me, I do not go to any great distance from the house. I see Ospreys, plenty of Blue Jays, Scarlet Tanagers, Quails, Towhé Buntings, White and Green Herons, an Ivory-billed Woodpecker, and a pair of Black-necked Stilts. Next morning I leave, soon after daylight, in an open waggon drawn by two half-starved horses, which makes a weekly trip with the mail to New Smyrna, on the Atlantic coast. The distance is thirty miles of deep sandy road, through scrub and open pine-barrens—as sterile and dreary a country as can well be conceived. Our progress is so slow that the journey occupies the whole of the day.

There are only two or three settlers on the road. Like all the small settlers, or "crackers" as they are called in Florida, they own cattle or swine, and lead a nomad life in the "piny woods," building a log-hut here and there, and moving further into the wilds when they "get crowded," that is, when any others come within five or six miles of them. One of them told me that there were a "smart" of Bears, Wolves, and Turkeys about. The Wolves had been "bad" on his hogs, and he had killed a good many of them with strychnine. Every "cracker" has a rifle of course, and uses it. The consequence is, that wherever he locates himself game becomes scarce. It is either killed up, by the perpetual shooting at all seasons, or becomes "scared" and retires further into the forest.

Near some half-dried lagoons, a few miles from Enterprise, I see some Cranes, either *Grus canadensis* or *G. americana*, and in the "piny woods" there are numerous Bald Eagles. A flock of Parrakeets alights in a pine-tree close to the roadside. I am near enough for a shot, but their plumage so closely assimilates to the foliage that I cannot distinguish them, as the sun is shining directly in my face. To my great disgust they fly away, screaming loudly. The present settlement of New Smyrna consists of two wooden houses, one of which belongs to a man of the name of Sheldon. It has recently been enlarged, and is now elevated to the rank of an hotel or boarding-house, for the benefit of invalids who come here in winter; and I must say that it is one of the most comfortable houses of the kind that I have yet met with in America. It is situated at the head of Mosquito Inlet, about three miles from the sea. In front of the house are several swampy islands of various extent, covered with reeds and mangroves.

March 28.—I go out at sunrise, and explore the vicinity of Sheldon's house. Except a bit of badly cultivated ground close to the settlement, the whole of the back country is now overgrown with bush, although formerly large tracts were under cultivation, producing cotton and sugars. Much of the bush is mere scrub; but there are large "hummocks," as they here call the thick woods of palmetto, oak, magnolia, and other trees. Nearly everywhere throughout Florida the ground is covered with a dwarf palmetto, which grows in patches, like fern, and is most difficult to walk through. It is called "saw"-palmetto, as the stem of the plant is covered with sharp points, like the teeth of a saw. A common practice here, as in other countries, is to set fire to the woods and bushes, to burn off the rubbish and allow the young grass to grow up. After the fire has passed over the saw-palmetto, it leaves the sharp-edged stems all standing, as tough and pliable as wire, and more difficult than ever to traverse, with the additional disadvantage of being covered with soot, so much so as to blacken everything with which they come in contact.

I see Towhé Buntings in plenty, and King-Birds, White and Blue Herons, are constantly flying overhead, between the marshes and the hummocks. For some time I find nothing worthy of notice until my return homewards, when, close to the gate of Sheldon's enclosure, I see several Florida Jays (*Cyanocitta floridana*) among the scrubby bushes, and succeed in killing two; a third is obtained by my companion. They appear to be much less restless and noisy than the common Blue Jay. Shortly after I get home, I find some of the children attempting to skin another, which some one has shot and given to them. They willingly exchange it with me for a Blue Jay, which answers their purpose as well, so I feel that upon the whole my morning's work has been by no means unproductive. In the afternoon I go out with Sheldon, who acts as pilot and harbour-master, to the Bar, at the entrance of Mosquito Inlet. We see Cormorants, Pelicans, and Ospreys in abundance. The latter have now got nests, and are busy fishing. Each bird, after making its plunge, which is rarely unsuccessful, flies off to the woods with its prey. I observe that they invariably hold the fish in the same position, viz. parallel to their body, and with the head always foremost. So unexceptional is this, that if I had not seen several on the wing at once, I should have had some difficulty in persuading myself that it was not the same bird seen repeatedly. Instinct, no doubt, teaches the bird that its prey carried in this manner offers the least resistance to its flight. I did not see so many varieties of birds about the Bar as I had expected. There are some vessels lying there, laden with live oak, waiting for a change of wind to go to sea; and the crews are always "loafing" about the shore with guns, and driving everything away. Sheldon says that Terns breed in numbers on the sand-banks, but this will be later in the season.

29th.—Out early in the morning to some extensive pine-barrens about two miles inland. I see a small flock of Parroquets, and with some little difficulty manage to get within range and kill two, only one of which I can find. I also see an Ivory-billed Woodpecker. In the afternoon I go along the shore, and kill a Willet—one of a small flock which are feeding on the mud from which the tide has receded.

30th.—Out at sunrise to some savannahs or open meadows, about three miles south of Sheldon's. It is very gamy-looking ground, with grassy savannahs and thick hummocky woods lying in alternate belts. Birds are scarce, and I only got a Pileated Woodpecker, but see in the distance two Deer and a Turkey.

My companion shoots an Opossum which is sitting on the branch of a sapling some twenty feet from the ground. Being a stranger to the woods, he is greatly pleased at his feat, as he is under the impression that he has killed a 'Coon, until I undeceive him.

Thunderstorm all the afternoon. Every evening while at New Smyrna I go out in the hopes of obtaining a Chuck-Will's-Widow, but always unsuccessfully. They are common, but not plentiful, and a few make a great show in the way of noise. They do not begin to call until the red light has disappeared from the horizon, and twilight here lasts so short a time that, unless one happens to be in the right place at the right moment, the chance of getting a fair shot is small. Moreover they frequent such thick places that it is almost impossible to see them when sitting, unless they should happen to be on an old stump or rail-fence with a clear background, which piece of luck never occurred to me. On one occasion I stood within a few yards of a thick brake in which one was calling, and could not see it; nor would it fly out even when I discharged my gun into the covert. Frequently, in the "gloaming," I used to peer into the dark places where they were calling, and shot at a leaf or a tuft of foliage on the chance of its being a bird. Their plumage is so delicate that it is necessary to be at a fair distance from them; for if near, the shot would damage them so much as to make them useless for specimens. A thick, warm, foggy evening is the best for them, as they then call earlier and fly about more; and this is just the sort of evening when mosquitoes and sand-flies are most lively and bite the sharpest, rendering it impossible to stand still, which considerably diminishes the chance of a fair shot.

The cry of "Chuck-Will's-Widow" is distinctly and rapidly uttered, and in most liquid notes. The last syllable is generally prolonged. Often the bird commences with "will's-widow, will's-widow," two or three times uttered; then "chuck, chuck, chuck-will's-widow." I believe they only utter this cry when sitting, never when on the wing. They also make a grunting noise. In habits the Whip-Poor-Will greatly resembles the Chuck-Will's-Widow, and is equally difficult to shoot. Its notes are equally liquid and rapidly uttered, often running the three words into one, as "Wipperwill." It also frequently commences with "Whip, whip," two or three times before uttering its full note. I did not observe it in Florida. Just before the Chuck-Will's-Widow begins to call, the bushes often resound with the cry of a small bird, which I was unable to obtain. Its cry is very peculiar, and sounds like "churrrrr," very roughly uttered and prolonged. The people about said it was a Cat-Bird; but they were wrong, as I am perfectly well acquainted with the note of the Cat-Bird. While out in the woods in the evening I used frequently to see Barred Owls sitting on the open branches. They were tame, and would allow of my approach within a short distance.

March 31.—Out at sunrise to the pine-barrens. I see plenty of both *Quiscalus major* and *Q. versicolor*. I observe but very few females in proportion to the males. This is strange, for I remember when in Honduras that the majority was the other way. The male there has the character of being polygamous; but here it appears that the contrary rule of polyandry obtains.

Quails are abundant, and particularly so on these pine-barrens. With a pointer or setter, very good sport might be had; but, without a dog, it is useless to attempt shooting them. I sometimes start a covey from under my feet, and occasionally some of them fly into the trees, when I secure a few for the pot. Early in the morning they are to be seen running about in the road which passes through the pine-barrens, from Smyrna to Enterprise.

I hear "Clapper Rails" every evening, and sometimes during the day, calling among the mangrove-bushes which grow in the swampy islands opposite Sheldon's house. The cover is so dense, that without a dog it would be impossible to get a shot. The mud too is deep and stiff; so upon the whole there is no great encouragement to go in pursuit of them. My habit here is to go out at daybreak. By nine o'clock in the morning the sun is becoming hot: I come in, have my bath and breakfast, and then set to work skinning birds. In the afternoon I go out again; but the morning is always the more productive. From 9 to 11 o'clock is the hottest time of the day, as the sea-breeze does not set in until about the latter hour. The thermometer in my room averages about 76°. The heat out of doors is never oppressive as long as there is any breeze to be felt; but in woods inland, where the sea-breeze does not penetrate, it is occasionally very sultry. The sea-breeze is loaded with moisture, and I find some difficulty in getting my bird-skins to dry well. Sometimes the damp air affects them so much as to cause feathers to fall off, especially from the head and tips of the wings.

April 1.—Out in the morning early, but did nothing. There was a thick fog, and for some time I lost my way in the bush. In the afternoon I went some miles to the south along the savannahs, and came back by the shore—a long tramp through marshes and scrub as high as my head, and very thick. This was a profitless day's work, as I only saw two large Woodpeckers, either Pileated or Ivory-billed, and they were so wild that I could not get within a hundred yards of them.

A day or two ago, two Englishmen, H— and L—, returned to Smyrna from Indian River, where they had been for the last month on a sporting expedition. They took with them two boats, with George Sheldon—Sheldon's eldest son, to whom the boats belonged—and a coloured man, named Bill, to cook and mind the camp. Before leaving, they went out one afternoon to a large hummock, called the Back Swamp, to look for Turkeys. While waiting there, a she-bear and cub ran up to them. They shot the former, but missed the latter.

Upon the whole they did not have much shooting. They only killed one bear and three or four deer, but a good many alligators, and they had good sport in fishing and harpooning Saw-fish. Some of the saws which they brought back were fully three feet long. They had no good dogs, which are indispensable for finding bears in a country so thickly wooded. They express themselves greatly pleased with the trip, particularly with the delicious, healthy, and cheerful climate, which is so well adapted for camping out, and with the never-failing sport in fishing. The fish usually caught were Drum and Sheepshead, both plentiful in these waters. They were not ornithologists, and could tell me but little about the birds. They noticed a few flocks of Parroquets and some large Woodpeckers.

The quadrupeds in this part of Florida are deer (Virginian), bears, cougars, or tigers as they are called, otters, foxes, racoons, opossums, squirrels, and rabbits. Bears are very plentiful in some localities. Sir Francis Sykes, with a party of friends, passed three winters on this coast, making Sheldon's their head-quarters. One winter they killed as many as thirty-five bears, principally on Merritt's Island, near Cape Canaveral, where they were camping out. There is no possibility of having good sport with bears without dogs. At certain times the bears are in the habit of coming down to the shore to feed on Horse-shoe Crabs, and shots at them may then be obtained by stalking. A few years ago Roseate Spoonbills were plentiful down Indian River, but of late their numbers have greatly diminished, owing to their being shot for the sake of the wings, which are greatly in demand for the purpose of making fans. People from the Northern States, who come to Florida to pass the winter, buy them to take back as presents. I have heard of seven dollars being given for a pair. A negro steward on board the 'Darlington,' a slave, offered me 1½ dollar a pair for as many as I could let him have (I had none), and said that he could sell them for two dollars, which I believe is the minimum price. At this figure they will soon be killed down. Sheldon's two sons, George and Henry, kill numbers of them. From the former's account, it appears that these birds, after breeding down Indian River, move northwards and remain during the summer in the salt-marshes about Smyrna. One, which had been brought up from Indian River to Sheldon's, a year ago, is now here, and quite tame, associating with the poultry. It can fly well, and frequently takes itself off to the shore to feed when the tide is out.

While I was staying at Smyrna Henry Sheldon brought up four young Spoonbills from Indian River, which he had taken from the nest a short time previous. There appeared to be no difficulty in rearing them.

April 2.—Thick fog in the morning. Out at nine o'clock, for a couple of hours; but the sun is very hot, and I get nothing. The only bird of any account seen is a Swallow-tailed Kite, soaring at a distance. One great advantage of this part of Florida—at least at this time of year—is that there are not many insects to trouble one. There are neither ants, ticks, nor garrapatos, nor are there many mosquitoes. Sand-flies, which are like Scotch "midges," are plentiful enough; and I am told there is any quantity of fleas, but I experienced no inconvenience from them. There are some very large flies, of the same shape, and fully three times as large, as a blue-bottle, which buzz round one most pertinaciously, and are very annoying, but harmless, except to horses, which suffer severely from their bites.

April 4.—At night Sheldon proposed to me to go out "fire-hunting" deer. So as it was a novelty to me in the way of sport, I accompanied him to see what it was like, and to record my experiences for the information of those readers of 'The Ibis' who may not know how it is done.

He rode in front, carrying the light, and I followed with his gun, acting as his gillie or after-rider. His fire-apparatus consisted of an old frying-pan with a hole in the bottom, fastened to the end of a short pole. This, with some pitch-pine-knots, all a-blaze in it, he carried over his shoulder. A piece of coarse canvas was fixed over the horse's back to protect it from the falling cinders. The horse also carried a pair of saddle-bags with a supply of pine-knots to replenish the fire when necessary. We rode through some old fields where cotton was formerly grown, but which are now out of cultivation, being covered with coarse grass, with a few palmettos and pines growing here and there. In these fields the deer are in the habit of feeding at night. As we rode along, Sheldon was peering into the darkness, watching for the "shine" of the eyes of the Deer, which come up to look at the light. After a short time he stopped, got off his horse, which I held for him, and took his gun, which was loaded with buck-shot. He walked on a short distance, still carrying the blazing frying-pan over his shoulder, and fired. I went up and found a year-old deer-calf, kicking on the ground, which, after cleaning and covering over with palmetto boughs to protect it from the Turkey Buzzards, we left till morning. We rode on some distance further, but saw no more. There is no more sport in "fire-hunting" than in shooting Pheasants at roost, and it is equally destructive, especially where the deer are not used to the practice. Here they are wild, being much hunted in all ways, and lie during the day in the swamps and thick brakes, only coming out to feed in the open ground at night.

Sheldon goes "fire-hunting" whenever the house is in want of fresh meat, and rarely returns empty-handed. Sometimes he kills three of a night. The deer in Florida have been much reduced in numbers of late years, owing to a disease called "black tongue," which made great havock among them. The disease, however, appears to have passed away, and their numbers are again on the increase.

The blaze of the pine-knots threw a strong light for fifty yards around us, and we could see plainly where we were going. It would be very unsafe to ride in the dark, for the ground is full of holes, like large rabbit-burrows, made by the Land-tortoises, here called Gophers (*Testudo carolina*). These tortoises are extracted from their burrows by hooks with long handles, and are, I believe, used as food. "Fire-hunting" is also equally successful in obtaining fish. Every night one of Sheldon's negroes goes out in a boat with some lighted pine-knots at the bow, and with a spear soon obtains enough for the use of the house.

April 5.—About three miles inland from Sheldon's there was formerly a sugar-plantation, which was devastated by the Indians in the war of 1835, and is now overgrown with bush. The walls of the sugar-mill, which was burnt, are still standing, and enclose the remains of the steam-engine. This is one of my favourite resorts when after birds. The ruined sugar-mill stands on the edge of the pine-barren, about a hundred yards distant from a dense wood or hummock. I hardly ever go there without finding a covey of Quails close under the walls. I go there early this morning, and find a small troop of Florida Jays in some pine-trees which stand close to a scrubby thicket of underwood. The trees are so high that the Jays look no larger than Mocking-birds. I shoot one, and the remainder "dive" (the most expressive word I can use) into the thicket; I go in after them, and succeed in killing two more, after a sharp "hunt" of some ten minutes, during which my clothes suffer considerably from the thick bush and saw-palmettos. I always observe these Jays either in or close to this scrubby bush, and never elsewhere. Dr. Bryant's experience of them in this particular coincides with mine.

I see several large Woodpeckers, and get within range of one; but my gun misses fire, owing to the dampness of the air. They appear to be birds of long flight. Occasionally I see them passing over Sheldon's house, flying high and with a somewhat heavy flapping of the wings. Deer-tracks are plentiful about the sugar-mill, and on my return home along a sandy pathway, I see the fresh tracks of a "Tiger," which I trace to within a short distance of Sheldon's house. The footprint is like that of a large dog, but distinguished from the latter by showing no marks of the nails. I tell Sheldon what I have seen, and he, perhaps thinking of the safety of his pigs, proposes to go out for a hunt into the hummocks near, after tigers, deer, turkeys, or anything we can find. As soon as I have had some breakfast we start, taking a lot of dogs with us to start and "tree" the game. While passing through the woods I shoot a fine male Pilcated Woodpecker; but, as my gun is loaded with large shot, it does not make a good specimen. We find no Deer. A Turkey is seen and shot at by one of the party. I see a pair of Swallow-tailed Kites, and shoot at one of them, but, owing to the dense foliage, I cannot see with what result. Suddenly the dogs commence barking furiously. We go up and find them assembled at the foot of a lofty tree, which is covered with festoons of hanging moss. For a long time we can see nothing; but Sheldon at last perceives a thick lump, almost entirely hidden by moss, among the topmost branches. I fire, and down falls a "'Coon," which, being only wounded, is quickly despatched by the dogs. Sheldon says that the Wild Turkeys are now nesting. According to his account, they lay their eggs in the pine-barrens, at the edge of a marsh. Parroquets, too, are also breeding about this time. They generally breed in the cypress-swamps. They roost in company, making use of a hollow tree as their resting-place. I am told that some live-oak-cutters, up Halifax River, saw a flock go one evening into a hole in a tree to roost; next day, while the birds were absent, they cut the trunk of the tree nearly through, only leaving just enough uncut to keep it standing. After the Parroquets had gone in to roost, they felled it with a few blows of the axe, and secured them all.

[To be continued.]

XVII.—*On some new or little-known Birds from the Cape Colony.* By Dr. G. Hartlaub.

Dr. Sclater having submitted to my examination a small series of birds' skins sent to him for identification by Mr. E. L. Layard, Curator of the Museum at Cape Town, I take the liberty of offering to the readers of 'The Ibis' the following list of the species, with remarks upon such of them as appear to me to be new or of interest. The localities and some remarks are added from Mr. Layard's MSS.

Fam. CAPRIMULGIDÆ.

1. Cosmetornis vexillaria (Gould).

Probably a *young male* of this curious species. The elongated wing-feathers are only partially developed; they are of a pure white on the basal part of the inner web. Nuchal collar pale rufous; abdomen whitish with black transverse bands; throat and breast rufous and dark-brownish-banded. The localities hitherto assigned to this extraordinary form are: Madagascar (Liénard); mouth of the River Quilimane (Sir Wm. Jardine); Angola (Gabriel). The present example, as Mr. Layard informs us, was obtained in Damara-land by Mr. Andersson.

2. Caprimulgus atrovarius, Sundev.; Grill, Victor. Zool. Antekn. p. 41.

From Rondebosch, obtained by Mr. Fry. (E. L. L.)

3. Caprimulgus smithii, Bp.

Environs of Cape Town. (E. L. L.)

4. Caprimulgus lentiginosus, Smith (?).

Environs of Cape Town. (E. L. L.)

Fam. HIRUNDINIDÆ.

5. Hirundo holomelas, Sundev. Ofvers. 1850, p. 108; Grill, Victor. Zool. Antekn. p. 36. *Psalidoprocne cypselina,* Cab.

"This little Swallow first fell under my notice on the Keurbooms River, Knysna district, where I saw it apparently breeding in the holes in the banks, but I was unable to investigate its doings more closely. I found it abundant in the forest, hawking after flies over the pools, frequently dipping into the water, and perching on the overhanging boughs in clusters of six or eight, to dry itself. It perches constantly and habitually on trees, and thus may be at once distinguished from *Cypselus velox,* which one of our zoological friends here thinks Levaillant may have described from this species.

"This habit of perching is noted by Mr. Cairncross, who writes, 'This bird flies about very much like a bat [this resemblance also occurred to us when we saw it], amongst thick forests of trees, and is generally more visible in rainy, heavy weather; but I have never seen or heard of their breeding here (Swellendam). They remain here after the winter has set in. Sometimes I have seen them roost on trees at the bottom of my garden, where I shot the specimen sent.'" (E. L. L.)

6. HIRUNDO DIMIDIATA, Sundev. *l. c.*; Grill, *l. c.* p. 36.

The supposed identity of this species with the *H. leucosoma* of Western and Southern Africa (Sundev.) remains still very doubtful. The white markings on the wings and tail are different.

"This Swallow is very rare in the neighbourhood of Cape Town, but becomes more common towards the mainland. Writing from Cape Town, it will be as well to treat of this peninsula as apart from the continent. The vast tract of sand called the 'Cape Flats,' together with Table Bay on the one hand and False Bay on the other, quite shut it off from the main land, so to speak; and to aid in the isolation, the main land ends in an abrupt precipituous wall of mountains, which are only to be passed in one or two places. Doubtless the peninsula of Table Mountain was once an island entirely cut off from the main land, and 'Table' and 'False Bays' part of a strait between. As soon as the hills are reached on the opposite side of Table Bay, this Swallow commences; and at Swellendam, Mr. Cairncross writes, 'it is very common, and builds its nest generally under the thatch of an old mill or stable, where it is quieter than in a dwelling-house; it lays a small white egg; and tradition says it drives the Sparrow and House Swallow (*H. capensis*?) from their nests, occupies them, and breeds therein. For this reason it receives no mercy from the farmer, but its eggs and young are destroyed whenever met with.'" (E. L. L.)

7. Hirundo palustris, Steph.

"Found about the neighbourhood of water, generally in company with *H. paludicola.* Received from Mr. Cairncross of Swellendam, and Mr. Jackson of Nilsport, in the Beaufort division." (E. L. L.)

8. Cotyle fuligula, Licht.

"From Beaufort." (E. L. L.)

Fam. ALCEDINIDÆ.

9. Halcyon fuscicapilla, Lafr.

"Mr. Atmore assures me that this species (no. 28) is plentiful at Swellendam, and that when he is digging in his garden specimens may always be seen perched on the trees near, from which they dart down on the worms as he turns them up with his spade." (E. L. L.)

Fam. UPUPIDÆ.

10. Rhinopomastes cyanomelas, Vieill.

Kuruman (Mr. Moffat); Damara-land (Andersson).

Fam. LUSCINIIDÆ.

11. Calamoherpe rufescens (Keys. & Bl.); Grill, *l. c.* p. 28.

One example is in the collection, marked "*L'Isabelle*?". It is probably a young bird of this species, "from Swellendam."

12. Luscinia sperata (Lath.), Sundev. Obs. in Levaill. Ois. d'Afr. p. 44; Grill, *l. c.* p. 27.

I have seen but few of these birds, and those only in the summer months, among the stones just below the Lion's Head, at an elevation of 1500 feet. (E. L. L., note on specim. no. 35.)

13. Luscinia sinuata, Sundev. *l. c.* p. 44, nota; Grill, *l. c.* p. 27.

Descr. Supra dilutius brunnea, subtus multo pallidior in vinaceum vergens; mento albido; crisso, subcaudalibus, subalaribus et cruribus albidis; uropygio cinnamomeo-rufo; hypochondriis subrufescentibus; remigibus fusco-nigricantibus, *horum secundo ad apicem profunde sinuato-angustato*; tertiariis late et conspicue rufescenti-marginatis; rectricibus omnibus ad basin isabellino-fulvescentibus, extimæ pogonio externo ad apicem usque ejusdem coloris, secundæ in pogonio externo dimidio basali pallide rufescente; tarsis elongatis; saxicolinis, caligatis et cum rostro gracili, compresso, carinato, nigris. Long. 4″ 9‴; rostr. 5‴; al. 2″ 9‴; caud. 1″ 8″; tars. 1″.

Three specimens of this interesting bird, whose alar abnormity was first discovered and indicated by Sundevall. It is described here for the first time. It is not in the Berlin collection, otherwise so rich in South-African species. A nearly allied bird is the *Erythropygia galtoni* of Strickland, considered by Sundevall as only a variety of *L. sperata*. The curious apical attenuation of the second primary reminds one of certain South-American *Tæniopterinæ*, as for instance of the *T. pyrope* of Kittlitz.

"Received from Colesberg, Kuruman, and Beaufort. Not found near Cape Town." (E. L. L., note on specim. no. 36.)

14. Bradypterus sylvaticus, Sundev. in Grill, Ant. *l. c.* p. 30 (descr. compl.).

This is another very interesting bird, of which one example, in Mr. Layard's collection, was "received from Kuruman." I refer it at present to the very-little-known *Bradypterus sylvaticus* of Sundevall. However, the specimen being in a rather doubtful condition, I *do not feel quite sure* about this identity, and prefer giving a short description:—

Supra saturate brunneus, subrufescens, alis et cauda fuscis; uropygio lætius tincto; subtus lateraliter rufo-brunnescens, medialiter albidior; mento, gula et subalaribus albidis; subcaudalibus dilute rufescentibus, loris pallidis; pedibus pallide brunneis; rostro gracillimo, brunneo, mandibula pallidiore. Long. 5″; rostr. 5‴; al. 2″ 3‴; caud. a bas. 2‴; tars. 9″.

The whole habitus of this species is *Cettia*-like: wings short, concave, rounded; beak very slender, straight, compressed; feet rather large; tail very weak, rounded; rectrices broad, weak, decomposed, &c.

15. Apalis thoracica (Shaw); Grill, *l. c.* p. 31.

Layard, specim. no. 33.

16. Sylviella rufescens (Vieill.); Sundev. Obs. in Levaill. Ois. d'Afr. p. 39; Grill, *l. c.* p. 31.

Layard, specim. no. 29.

17. ÆGITHALUS MINUTUS (Shaw). *Le Becque-fleur,* Levaill. Ois. d'Afr. pl. 134; Sundev. Öfvers. 1850, p. 107.

Layard, specim. no. 30.

18. PARISOMA LAYARDI, Hartlaub, sp. nov.

Supra saturate cinereum, tergo et uropygio vix pallidioribus; remigibus fuscis, intus albo-marginatis; subalaribus albido cinereoque variis; gula alba, notis longitudinalibus cinereis varia; pectore et abdomine sordide albidis; rectricibus quatuor mediis totis nigro-fuscis, extima pro majore parte alba (pogonio externo toto, interno ad apicem large et oblique albo), secunda ad apicem large alba; pedibus et rostro nigris. Long. fere 5″; rostr. a fr. 4‴; al. 2″ 4‴; caud. a bas. 2″ 4‴; tars. 9½‴.

A typical *Parisoma* which seems to be undescribed. Dr. Jean Cabanis, to whom I have submitted the bird for examination, does not know it. I hope to be justified in the opinion of every ornithologist if I name it after Mr. E. L. Layard, whose collection contains one example of this bird, labelled "*Le Coryphée,*" and "received from Zwartland, in the Malmesbury division."

19. ZOSTEROPS PALLIDA, Swainson, An. in Menag. p. 294.

This being the first time I have met with this very rare species in South-African collections, I subjoin a description:—

Supra cinerea, *uropygio albo,* subflavescente; subtus albida, lateribus brunnescente lavatis; alis et cauda nigricanti-fuscis; subalaribus albidis; rostro fusco; pedibus cinerascentibus; annulo periophthalmico (in hoc specimine) vix conspicuo. Long. 3″ 9‴; rostr. 4‴; al. 2″ 5‴; caud. 1½″; tars. 7‴.

A nearly allied species is *Zosterops borbonica* (Briss.). Mr. Layard's single specimen is numbered 39.

20. ANTHUS —— ?

Parvus; supra in fundo dilute olivascenti-brunneo, maculis nigro-fuscis magnis longitudinalibus varius; remigibus tertiariis pallide marginatis; rectricibus fuscis, pallidius limbatis, extima fere tota albida, pogonio externo subfuscescente, secunda albida, intus late fusco-marginata; *subtus flavicans,* pectore maculis longitudinalibus fuscis; subalaribus flavido fuscoque variis; subcaudalibus flavescentibus; pedibus pallidis; mandibula pallida. Long. 4″ 9‴; rostr. 6‴; al. 2″ 6‴; caud. 1″ 9‴; tars. 8‴; ung. post. 6‴.

Allied to the *A. limonellus* of Licht. If new, *Anthus icterinus.* "From Mr. Cairncross of Swellendam." (E. L. L.)

Fam. TURDIDÆ.

21. Cossypha caffra (Linn.). *Bessonornis caffra,* Grill, *l. c.* p. 29.

Mr. Layard's specimen (no. 30) was received from Mr. R. Moffat at Kuruman.

22. Pycnonotus aurigaster (Vieill.), Sund. Obs. in Levaill. p. 36.

Layard, specimen no. 36.

Fam. MUSCICAPIDÆ.

23. Butalis adusta, Boié.

Mr. Layard has sent one specimen (no. 23) of this species, a young bird, "from Swellendam."

Fam. LANIIDÆ.

24. Malaconotus atrococcineus, Burchell.

"We have received specimens of this Shrike from Kuruman, Colesberg, and Damara-land." (E. L. L.)

25. Basanistes melanoleucus, Smith.

Layard, specimen no. 22.

26. Bradyornis silens (Shaw); Grill, Zool. Antekn. p. 33.

"Common about the Knysna and Swellendam." (E. L. L.)

Fam. STURNIDÆ.

27. Lamprocolius phœnicopterus, Sw.

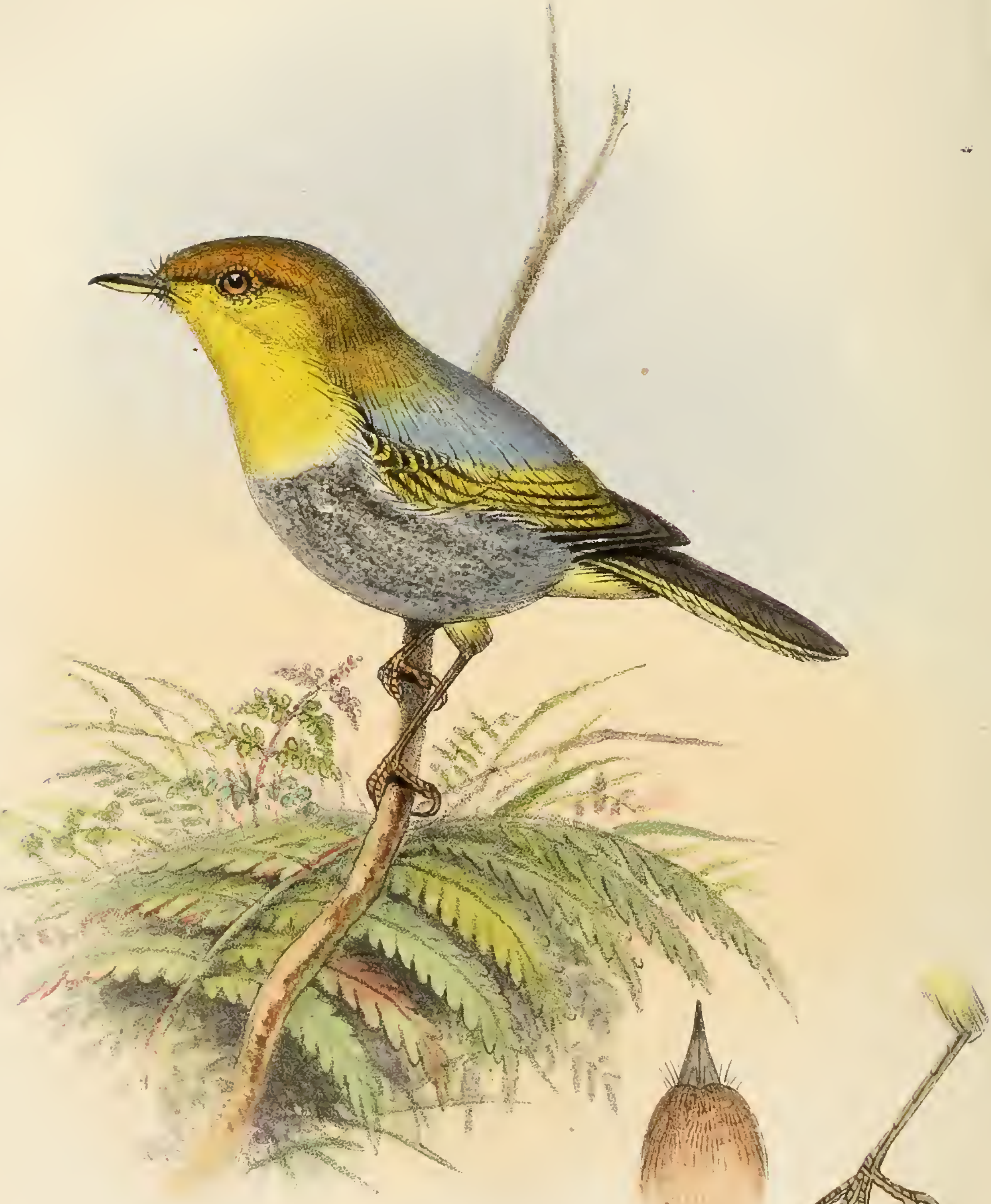
Damara-land, one example. (E. L. L.)

28. Lamprocolius melanogaster, Sw.; Grill, *l. c.* p. 37.

Two specimens; one (no. 41) "believed to have been shot not far from Pietermaritzberg." (E. L. L.)

29. Lamprocolius decoratus, n. sp.

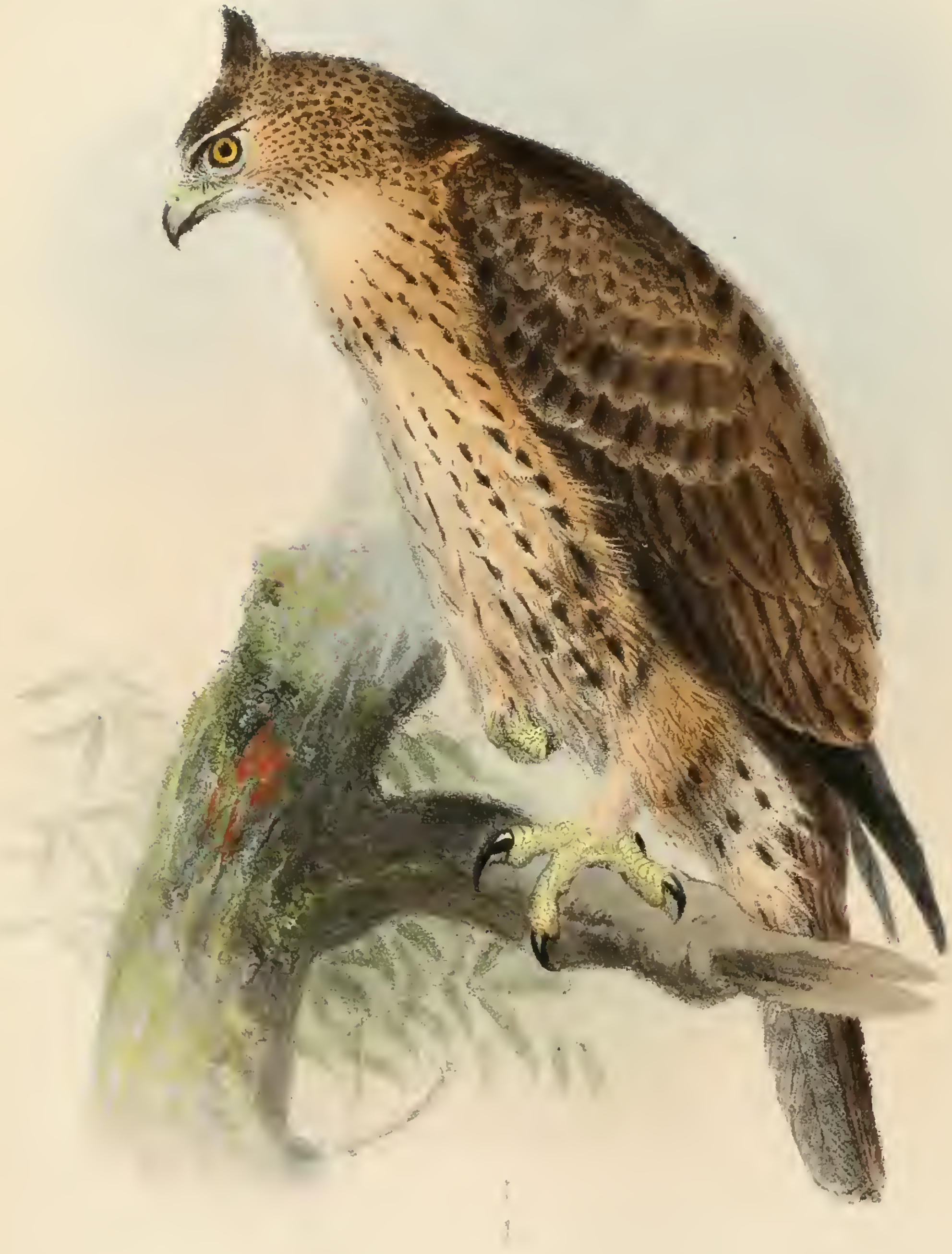
Totus metallice iridescens, occipite, nucha, regione parotica et tergo nonnihil cærulescentibus; macula scapulari violaceo-purpurascente, nitore cupreo; rectricibus mediis violaceo-cærulescentibus, sub certa luce conspicue fasciolatis; remigum marginibus externis cærulescentibus; maculis holosericeis alarum minimis, vix conspicuis; rostro gracili et pedibus



J Jennens, lith.

M & N. Hanhart, Imp.

PINDALUS RUFICAPILLUS.



[illegible]

M. & N. Hanhart Imp.

SPIZAETUS AYRESII.

nigris. Long. 8″ 2‴; rostr. a fr. $8\frac{1}{2}$‴; al. vix $4\frac{1}{2}$″; caud. 3″; tars. $13\frac{1}{2}$‴.

The ornithological department of the *Lamprotornithinæ* being rather familiar to me, I at first sight referred this bird to the *L. sycobius,* Peters; but after a more careful comparison I have little doubt that it will prove new. It belongs to the third division of the genus, as arranged in my monograph, and is nearly allied to *Lamprocolius phœnicopterus, L. bispecularis* (which I have never seen), and *L. sycobius.*

XVIII.—*A Fourth additional List of Birds received from Natal.*

By John Henry Gurney, M.P., F.Z.S.

(Plates IV. & V.)

The birds contained in the following list have been collected by Mr. Thomas Ayres, to whose obliging assiduity I am also indebted for the observations accompanying them. In a few instances I have appended some notes of my own, to which my initials are attached. The additional species are numbered consecutively to those contained in my former papers on this subject ('Ibis,' 1859, p. 234, 1860, p. 203, 1861, p. 128, and pp. 25–39 of the present volume).

177. Spizaëtus ayresii, sp. nov. (Plate IV.) Ayres's Hawk-Eagle.

Male. Iris light yellow; base of bill ash-colour, tip black; cere and feet greenish yellow.

This bird was shot near the coast in a very dense bush; it is extremely rare here. I know nothing of its habits; the stomach was perfectly empty.

[This very handsome *Spizaëtus* appears to me to belong to a species different from any of the four African *Spizaëti* which have hitherto been described, and I have much pleasure in proposing for it the specific name of *ayresii,* in recognition of the zealous cooperation which I have received in studying the ornithology of Natal from my esteemed correspondent Mr. Thomas Ayres, by whom the present specimen, which is the only one I have seen of this species, was procured.

Of the African *Spizaëti* already known to science, three species have been so frequently described, and differ so widely from the bird now under our consideration, that it is hardly needful to allude further to them here. These species are (1) *Spizaëtus bellicosus* (Daud.), which by its length of wing approaches very closely to the genus *Aquila*; (2) *Spizaëtus coronatus* (Linn.), which is the largest of the typical *Spizaëti*; and (3) *Spizaëtus occipitalis* (Daud.), which forms the type of Dr. Kaup's genus *Lophaëtus*. The fourth and rarest of the hitherto known African *Spizaëti* is that described and figured by the Baron J. von Müller in his 'Description de Nouveaux Oiseaux d'Afrique,' pl. 1, under the title of *Spizaëtus zonurus*, which had been previously described by the same author in the 'Naumannia' for 1851, p. 27.

It may be well also to mention that the name of *Spizaëtus spilogaster* has been given by M. le Vicomte Dubus to an African *Spizaëtus*, of which I believe neither figure nor description has yet been published, but which is probably identical with *Spizaëtus zonurus* of v. Müller, as it is stated by Prince C. L. Bonaparte, in the 'Revue de Zoologie' for 1850, p. 487, to be destitute of a crest, as is also the case in *Spizaëtus zonurus*. At any rate, the absence of a crest in *Spizaëtus spilogaster* marks that bird as being distinct from *Spizaëtus ayresii*, in which the occipital crest is a well-marked feature.

The other points of difference between *Spizaëtus zonurus* and *Spizaëtus ayresii* will appear by the following description and accompanying plate of the latter, and especially by the subjoined comparison of the dimensions of the two species.

The *Spizaëtus ayresii* may be described as follows:—

Above, general colour nearly uniform chocolate-brown, with the extremities of the feathers paler; head-feathers margined with yellowish rufous, especially on the sides; occipital crest rather broad (1·5 inch at the base), and about 1·75 in. in length, nearly black, slightly paler at the termination; front adjoining the cere yellowish white; wing-coverts and secondaries like the back; bend of the wing whitish; primaries uniform purplish black, indistinctly barred with whitish on the concealed lower parts of the inner webs, as is also the case with the secondaries, though less distinctly; tail-feathers above greyish, with seven cross-bands of brownish black, the terminal band broader and margined with whitish.

Below, ochraceous white, purer on the lower belly and crissum; breast, flanks, and under wing-coverts marked with elongated shaft-spots of chocolate-brown, which are widest on the flank and under wing-coverts; the crissum marked with rounded shaft-spots rather paler in colour, and in many cases repeated on the same feather; thighs nearly uniform ochraceous; axillaries like the breast, rather more rufous in colour, and distinctly marked with narrow elongated shaft-spots; under surface of primaries at the base whitish, varied with grey on the inner webs; under surface of tail greyish-white barred, in correspondence with the upper surface.

The measurements of *Spizaëtus ayresii,* in inches and tenths, are as follows, the corresponding dimensions of two examples of *Spizaëtus zonurus* being given for comparison.

	Long. tota.	Alæ.	Caudæ.	Rostri a rictu.	Tarsi.	Dig. med. cum ungue.	Dig. ext. cum ungue.	Dig. int. cum ungue.	Dig. post. cum ungue.
Spiz. ayresii (♂)	19·0	16·0	9·0	1·4	2·7	3·2	2·4	2·6	3·0
—— zonurus*(♂)(*a*)	17·0	13·0	7·0						
—— ——— (♀) (*b*)	22·0	16·0	10·0	......	4·0	3·0	2·0	2·4	2·4

—J. H. G.]

178. Motacilla longicauda (Rüpp.). Long-tailed Wagtail.

Male and female. Iris brown; bill black; tarsi and feet dark ash-colour.

These Wagtails are particularly graceful in their movements. They frequent rocky streams, and go so close to the rushing water that one expects to see them washed away every instant. They appear to glide rather than to walk or run over the stones in search of insects, and are not at all afraid of wetting their feet.

Soft small dragon-flies are favourite food with them. They are generally seen in pairs, and warble very prettily, though not loudly.

---

* [Specimen (*a*) of *Spizaëtus zonurus* is from Galam, and is now in the Derby Museum at Liverpool. Specimen (*b*) is in the South-African Museum at Cape Town, near which city it was procured.—J. H. G.]

179. BESSONORNIS VOCIFERANS (Swains.). South-African Robin.

Female. Iris very dark brown; bill black; tarsi and feet light pinkish brown.

The food of these birds consists of berries, small fruits, and insects. In their movements and attitudes they much resemble the English Redbreast, and they are particularly fond of chasing one another about. They frequent the dense bush.

[I believe that the bird figured by Sir A. Smith in his 'Zoology of South Africa,' Aves, pl. 60, under the name of *Cossypha natalensis,* is an immature specimen of the present species.—J. H. G.]

180. PINDALUS RUFICAPILLUS, Hartlaub, MS. Yellow-throated Flycatcher. (Plate V.)

Pogonocichla ruficapilla, Sund. Kongl. Vet. Akad. Förh. 1850, p. 105. *Culicipeta ruficapilla,* Grill, Zool. Antekn. p. 27.

Female. Iris very dark brown; upper mandible yellow; tarsi and feet pale, tinged with green.

Rare in this locality: frequents the bush and thick creepers. When in search of food is exceedingly active, flitting and hopping from twig to twig with the greatest celerity, and catching the small beetles, gnats, and flies, of which its food consists.

[I am indebted to the kind assistance of Dr. Hartlaub for the identification of this curious little bird. As I believe it has not hitherto been figured, the accompanying Plate, in which it is represented of the natural size, may prove interesting to such ornithologists as are not already acquainted with this scarce species.—J. H. G.]

181. CORVUS CAPENSIS, Licht. South-African Rook.

Female. Iris very dark brown; bill black; tarsi and feet black.

These birds are very numerous inland, doing considerable damage to the crops of maize when nearly ripe. On the coast districts, however, they are only occasional visitants. Their note is harsh and guttural. Their flight is swift, the beat of their wings being much more rapid than that of the White-necked Raven (*Corvus cafer*).

182. TURTUR ERYTHROPHRYS, Swains. Levaillant's Dove.

Male. Iris dark blackish brown, with a narrow yellow ring in the centre; bare skin under the eye dark pink; bill black; tarsi and feet dark pink.

These Doves are occasionally very plentiful in particular localities, arriving or assembling in considerable flights. Their food consists principally of the berries of trees; but they are also fond of alighting on roadways and cultivated ground, where they run about picking up seeds, &c.

183. EUPODOTIS MELANOGASTER (Rüpp.). Coran Bustard.

Male. Iris light brown, darker towards the pupil; bill, upper mandible brown, under mandible pale; thighs, tarsi, and feet pale yellow.

These beautiful birds are the most delicious-eating of any of the Bustards here; during the winter months they become extremely fat. I believe they are far more plentiful inland than on the coast. They are found sometimes singly, at other times in companies. They are tamer, and in consequence much more easily shot, than the larger kinds: if they think themselves not observed, they will almost invariably crouch on the ground, when the sportsman may get within twenty yards of them before they rise. Their flight is heavy, but they are able to sustain it for a considerable distance.

184. FULICA CRISTATA (Gmel.). Purple-knobbed Coot.

Male. Iris brownish red; bill whitish ash-colour; frontal shield white, terminating in two purplish chocolate-brown knobs; tarsi and feet ash-colour.

The bill of the immature bird is darker than that of the adult, and the knobs on the crown are not so large.

These Coots inhabit the lagoons, and are generally in companies. When disturbed, instead of attempting to hide, they immediately take wing and fly a considerable distance round and round, when, from their appearance and strong flight, they may easily be mistaken for a flock of black ducks.

The stomach of the specimen sent contained weeds, seeds of water-plants, and insects.

185. PODICEPS MINOR (Lath.). Little Grebe.

Male and female. Iris lightish brown; upper mandible dark brown, except the margins, which (with the under mandible) are yellowish green; gape green; tarsi and feet dull dark green on the inner surfaces, black on the outer.

These Grebes are common in the lagoons, and are occasionally found in the rocky streams inland; they are almost always in pairs, and appear to be somewhat pugnacious and fond of chasing each other about. The stomachs of three which I shot all contained insects, but no signs of fish, although the waters were swarming with them.

[The specimens sent by Mr. Ayres do not appear in any respect to differ from those found in Great Britain.—J. H. G.]

186. QUERQUEDULA HOTTENTOTTA, Smith. Hottentot Teal.

Male. Iris dark brown; bill, upper mandible black, except the sides and base, which are blue, under mandible bluish; tarsi and feet ash-colour.

These birds occur singly, or at most in pairs.

187. PHALACROCORAX AFRICANUS (Gmel.). Long-tailed Cormorant.

Male. Iris scarlet; upper mandible dark brown, except the margins, which are brownish yellow, as is the under mandible also; tarsi and feet black.

This species frequents the freshwater lagoons on the coast. Its flight is rapid and strong. When in the water it swims extremely low, scarcely any part of its back being then visible. Both in the air and on the water it much resembles the Anhinga (*Plotus levaillantii*) in appearance. It is a very superior diver, and feeds entirely on fish: if disturbed, instead of diving, it generally seeks safety on the wing. It is solitary in its habits, and, like the Anhinga, is particularly fond of sunning itself with outstretched wings on some clump of rushes.

The following additional notes refer to species included in my former lists.

FALCO BIARMICUS (Temm.). Latakoo Falcon.

Male and female. Irides dark brown; bill dark bluish ash-colour in the centre, black at the tip, and yellowish at the base; cere and eyelids yellow; tarsi and feet yellow. The male weighed 1 lb. 4 oz., the female 1 lb. 12 oz.

One cold, bleak, windy day in June my brother and I were shooting, when a Partridge rose to me, which I wounded, and which flew perhaps two hundred yards and then fell.

This pair of Falcons, which we had noticed soaring about for some time, immediately darted on the wounded bird; my brother easily stalked them, and with a double shot killed the pair. Although scarcely half a minute had elapsed since the Partridge fell, one of the Falcons had already eaten its head off.

These Falcons are very rare in our neighbourhood. Their flight is excessively rapid when occasion requires; but at other times they appear generally to soar easily and quietly about, apparently well scanning the ground over which they pass.

Astur melanoleucus (Smith). Black and White Goshawk.

It appears to me that these Hawks are more numerous here in the summer months, from November to February or March, than they are in winter.

Accipiter tachiro (Daud.). Tachiro Hawk.

Female assuming the adult dress; iris light yellow.

One of these birds a short time since suddenly emerged from the bush and made a swoop amongst a lot of our chickens; having failed in striking one, the chickens instantly ran to the cover of some rough weeds and grass, when the Hawk proceeded to hunt them on foot, and I put it up within five yards of me while so doing, and ultimately shot it.

Nectarinia afra (Linn.). Greater Double-collared Sun-bird.

Female. Iris dark brown; bill black; tarsi and feet dull brown.

This species is not found immediately on the coast, its range commencing about ten miles inland.

Parus niger (Vieill.). Black and White Tit.

I discovered a nest of these birds containing one egg and four callow young. The old bird had evidently taken possession of a deserted Woodpecker's nest. The hole was in a perpendicular and decayed bough of a large tree, about twenty feet from the ground; it was about a foot in depth, and there was a very little fine dry grass at the bottom, on which the egg and young birds were placed. I was obliged to cut and break the front of the bough to get at the contents of the nest; and the old birds showed their dislike to my proceedings by their chattering cries and uneasy manner. On leaving the nest I repaired the hole as well as I could, and left the little ones safe inside; but passing the place in about a week, I again climbed the tree and found the nest cold and deserted.

MOTACILLA CAPENSIS (Linn.). Cape of Good Hope Wagtail.

This is the most common of the Wagtails in Natal. It will frequently for a length of time follow a horse or ox whilst grazing, running actively along the ground and catching small insects which are thus disturbed; it also appears to find its food abundant in cattle pens and in muddy streams. Its flight is dipping, like that of the Wagtail in England.

PLATYSTEIRA PRIRIT (Vieill.). Pririt Flycatcher.

Male. Iris bright reddish yellow; bill black; tarsi and feet black.

These Flycatchers frequent the dense bush. Their flight is weak. They are restless in their habits, constantly flitting and hopping about in search of small slow-flying soft insects, which they take on the wing. Their note is harsh and grating to the ear: more than two are seldom seen together. They are found here all the year round.

DICRURUS MUSICUS (Vieill.). Musical Drongo.

I found a nest of these birds built on a horizontal bough of an acacia overhanging a pool of water, and about twenty feet above it. I sent a Caffre boy up the tree to saw the bough off. While he was thus engaged, the old birds attacked him furiously, making repeated swoops and feints at his head, and uttering at the same time loud notes of anger.

ESTRELDA ASTRILD (Linn.). Waxbill Finch.

I found several nests of these birds last season, all built upon the ground, generally in some convenient indentation sheltered by a clump of grass. The little elongated entrance of the nest is placed rather forwards, with the end of it touching the ground. On the top of the nest there is a sort of chamber, in which, the Caffres assure me, the male bird roosts at night during the incubation of the female.

Colius striatus (Gmel.). Striated Coly.

These birds appear to have the habit of constantly adding fresh and green leaves to the inner surface of their nests. Is a certain amount of dampness necessary for their eggs during incubation?

Toccus melanoleucus (Licht.). Crowned Hornbill.

Male. Bill dull red; tarsi and feet black.

I shot this Hornbill whilst in the act of swallowing a large locust which it had taken from the bough of a low bush. This bird did not appear to throw the head back so much as I have noticed that some other species do. Its stomach was full of locusts and caterpillars.

These Hornbills are generally found in companies of from ten to twenty; they mostly frequent the coast districts, but occasionally during the winter months they wander more inland.

[This species is the *Calao couronné* of Levaillant and the *Buceros coronatus* of Shaw, but not of Boddaert, as erroneously cited by me in 'The Ibis,' vol. iii. p. 133, the latter being a synonym of an oriental species, *Buceros monoceros* of Shaw.—J. H. G.]

Dendromus smithii (Malh.). Smith's Woodpecker.

[Since writing the remarks on this Woodpecker, published in 'The Ibis,' vol. iv. p. 38, I have had the opportunity of consulting M. Malherbe's article on this species in his magnificent monograph of the *Picidæ*, p. 154, and I observe that the difference between Mr. Swainson's description of the female of his *Dendromus chrysurus* and the females sent from Natal is there accounted for in the following terms:—"As for the description which Swainson gives of the female, it only applies to a young female which has the forehead and vertex black, without the spots, which extend with age, being as yet distinguishable; which also sometimes happens in other species of the same group."

M. Malherbe states, however, that he has never himself met with a West-African specimen of this Woodpecker.—J. H. G.]

Buphus comatus (Pall.). Squacco Dwarf-Heron.

Female. Iris light yellow; bill, upper mandible very dark brown, except the margins, which (with the under mandible) are yellowish; tarsi and feet light yellowish green.

These birds are not common here; they inhabit the marshes and lagoons on the coast, and occasionally one strays inland. They appear to feed on insects. Their flight is heavy, and against a strong wind they are able to make but little headway.

PŒCILONETTA ERYTHRORHYNCHA (Gmel.). Red-billed Duck.

Female. Iris dark brown; ridge of the upper mandible dark brown; sides and base of the upper mandible, and also the lower mandible pale or flesh-colour; tarsi and feet dark ash-colour; webs nearly black.

These Ducks inhabit the lagoons, and are not very common; they are less shy than most other wild-fowl here. The few that I have seen have been either single or in pairs.

[I regret to find that I have committed the error of enumerating this species twice, viz. as No. 62 in 'The Ibis,' vol. i. p. 251, and as No. 142 in vol. iii. p. 134.—J. H. G.]

DENDROCYGNA VIDUATA (Linn.). White-masked Duck.

Male. Iris dark brown; bill black; tarsi and feet bluish ash-colour.

I found a flight of about a dozen of these Ducks in a lagoon near the mouth of the River Umlass in the month of June. They were very wild, but after some trouble I got a long shot at them with one of Eley's cartridges, and succeeded in bagging three. They all varied in size and plumage, the one sent being the largest and handsomest. When standing on a mud-bank, in consequence of their rather long legs and necks they looked more like small geese than ducks. In flight also they much resembled Geese; there was an evident inclination to form a regular figure; and when they flew round near where I was concealed, they constantly uttered a sort of whistling cackle.

XIX.—*Some Remarks on the Genus* Balæniceps. By Dr. J. REINHARDT, Professor at the Royal Museum of Copenhagen, Foreign Member Z.S.L., &c., &c.*

OPINIONS pretty much at variance respecting the affinities of this genus have been propounded. Not to mention that Gould, when some ten years ago he gave the first account of it, would have it considered as the representative of the Waders among the Pelicans, it has subsequently been looked upon by Des Murs, on account of the characteristics of its eggs, as most nearly related to the Flamingo, and placed between that bird and the Spoonbill, while, according to Jules Verreaux's opinion, it stands closest to the large-billed Stork-like *Leptoptilus*. By Heuglin, also, it is referred to the Stork family, and therein finds its place between *Anastomus* and *Dromas*. The opinion which seems to be most generally received now is, that *Balæniceps* should be put alongside of *Cancroma*, and looked upon as a gigantic African representative of this American generic form.

---

* Translated from the 'Transactions' of the Royal Danish Scientific Society for April 1861, pp. 135–154.

It appeared to the author that this was not the right way of considering the genus *Balæniceps*. According to his opinion, another peculiar and equally African bird, which hitherto no one, so far as he knew, had thought of bringing into comparison with it—*Scopus umbretta*—was in reality its nearest of kin, and inasmuch as the genus *Scopus* is evidently more nearly allied to the Storks than to the Herons (from which, again, *Cancroma* cannot be separated), those ornithologists who have assigned a place among the former to *Balæniceps* must be considered as having approached the truth more nearly than those who have placed it alongside of *Cancroma*.

What has mainly led to the belief in a near relationship between *Balæniceps* and *Cancroma* is a certain resemblance in their bills. A closer investigation, however, would show that there exists no real affinity between them in this respect. In all the rest of its structure *Cancroma* is a Night-Heron (*Nycticorax*), distinguished by a particular shape of bill; but, in accordance herewith, its bill, notwithstanding its aberrant form, shows many characteristics of the Heron's bill. In the particular structure of the bill of *Balæniceps* we perceive, on the contrary, another type; and even the likeness it outwardly bears to the contour of that of *Cancroma* is, on nearer inspection, by no means so great as would appear at first sight. The bill of *Cancroma* is remarkably flattened, and not so much calculated for great strength as for great roominess; and this is still more increased by the naked dilatable skin between the branches of the lower jaw, which can be distended into a complete pouch or bag, hanging down as far as the throat. The bill of *Balæniceps,* on the contrary, is at the base rather high than broad; its sides (*paratomia*) are well arched, but still steep, and not, like those of *Cancroma,* nearly horizontal. The whole bill, in comparison with that of the last-mentioned bird, must be called compressed rather than flattened. It is clear that nature's aim has been to render it pre-eminently powerful; and the fact of the skin between the branches of the lower jaw being thickly covered with feathers for at least two-thirds of its extent is enough to show that no real faucial pouch is to be found in the *Balæniceps.* On continuing the comparison between the bills of the two birds, we find in *Cancroma,* as in the Herons generally, a little notch in the edge just behind the point, but not a trace of the powerful hook which terminates the upper mandible in *Balæniceps,* and which, together with the entire ridge (*culmen*), is sharply separated from the sides by a deep furrow. Just as little is the lower mandible truncated at its point to make room for the terminal hook. Finally, the nasal grooves as well as the nostrils of *Cancroma* resemble those of the Herons, but differ materially from those of *Balæniceps,* in which the former are extremely small, and the latter appear as lines or slits just perceptible, and are placed high up near the culmen and close to the base of the bill.

While differences are thus visible in almost every single part of the bill in *Balæniceps* and *Cancroma,* it will be easy on the other hand to point out in that of the genus *Scopus* (notwithstanding its, at first sight, different aspect) all the characteristics which distinguish the bill of *Balæniceps* from the bill of *Cancroma.* Thus in *Scopus* is found the hook with which the upper mandible of *Balæniceps* is furnished—somewhat smaller comparatively, it is true, than that of the latter, but, together with the entire culmen, just as sharply separated from the sides by a deep furrow. Moreover the lower mandible is truncated towards its point, in the same manner and for the same reason as in *Balæniceps.* Finally, the nostrils in *Scopus* also are narrow slits near the base of the bill. Even the sharp keel formed by the bill of *Scopus* is already exemplified by the raised ridge which runs along the middle of the flat culmen in *Balæniceps;* and if one imagines the bill of the latter to be so much squeezed together as to be metamorphosed into a cutting edge, and the branches of the under mandible towards the point to be tightly compressed, it would exactly resemble a gigantic but rather short *Scopus*-like bill.

One cannot so certainly conclude from the form of the foot, as from the bill, to which of the two birds named, *Balæniceps* most approaches; *Scopus* and *Cancroma* differing, with regard to their feet, but slightly from each other; and the most essential characters, therefore, in this respect, which distinguish *Balæniceps* from the one, must also separate it from the other. Each of these two birds has a long hind toe, inserted on a level with the fore toes, which, when the bird walks, touches the ground for its whole length. In both, the fore toes are united at the base by a membrane. The difference between their feet exists principally in the membrane of *Scopus* being somewhat larger than that of *Cancroma*, while, on the other hand, the hind toe of the last is a little longer. In *Balæniceps* the foot is mainly constructed after the same type, but every vestige of a membrane between the fore toes is wanting; and these, as well as the back toe, may be even a little longer than in *Cancroma*. So far, its form of foot may perhaps be said to stand nearer to the latter than to *Scopus*; a great difference, however, prevails in a point not less important. In *Cancroma*, as in all Herons, the middle claw is pectinated along its entire inner edge; in *Balæniceps* there is no trace of such a structure; while *Scopus* in this respect forms a connecting link, the claw being certainly serrated though only for a portion towards the tip, and the pectinations being neither fine nor particularly regular. If one now considers that such a pectinated middle claw is undoubtedly to be found elsewhere than in the Heron family, but in that family is otherwise never wanting *, its absence in *Balæniceps* really seems to imply a strong warning against giving this bird a place at the side of *Cancroma*, and therefore among the Herons, where its reticulated tarsi also are not rightly at home.

---

* To this rule only the genus *Eurypyga* would afford an exception, if indeed it can with justice be referred to the Herons. But, in the author's opinion, this genus is most rightly comprehended when it is placed in the neighbourhood of the Water-hens, as has formerly been done by Buffon, and as at the present time Des Murs and Olph-Galliard arrange it.

Extending the comparison between the three birds in question to the plumage (*ptilosis*), it will also be found that in this respect *Balæniceps* is more nearly allied to *Scopus* than to *Cancroma*. In the last, as generally in Herons, the basal downy portion of the webs is comparatively small, and there is scarcely any down intermixed with the true feathers. In *Balæniceps* precisely the contrary is the case. The downy portion of the webs is large, and genuine down is found intermixed with the feathers in some quantity, just as with the Storks in general and *Leptoptilus* in particular. Moreover the accessory plumule (*hyperrhachis*) is large and well developed in *Cancroma*, but very small in *Balæniceps*, which in this respect also is most nearly allied to *Scopus* and the Storks, among which, as is known, there are some species without any accessory plumule whatever. With a stuffed bird, the division of the feathers into regular patches (*pterylosis*) cannot be minutely examined, especially when its rarity obliges one at the same time to be careful of it. Therefore, as the specimen of *Balæniceps* which the Royal Museum possesses was already stuffed when it arrived, the author has not been able to assure himself regarding this bird's pterylosis; meanwhile it appears to him that *Balæniceps* is quite as near to *Scopus* as to *Cancroma* in this respect. In the last the pterylosis is essentially the same as in the Herons, while *Scopus* presents the same distribution of feathers as the Storks, but differs from them and from most, if not from all, other birds in having four patches (*pterylæ*) and four rows of feathers (*apteria*) running along the neck. In *Balæniceps* the neck appears to the author to be everywhere beset with feathers; and if it be so, this is a great deviation from *Scopus*. But supposing this deviation to be of little account, as in this respect the latter stands so completely isolated, a neck clothed all round with feathers would fairly bring *Balæniceps* nearer to the Storks, but not to *Cancroma*, which, like the Herons, has a broad row of feathers along the back and a similar one along the front of the neck. One of the most essentially distinctive marks by which the Stork-family is separated from the Herons in their pterylosis is the great development of the two patches of feathers on the under surface, which in all the forms belonging to the Storks extend in front nearly to the keel of the breast-bone, and thus have only a very insignificant row of feathers between them. In *Cancroma* and the rest of the Herons, on the contrary, they each consist only of some few rows of feathers; and accordingly are separated in front by a very broad space about the region of the furcula, where are found two oval powder-down patches. *Balæniceps* in this respect entirely approaches *Scopus* and the other Storks; its breast is throughout its whole extent covered with feathers, and Mr. A. Bartlett has quite recently shown that in this region no powder-down patches are found*. These, as is known, are in the Herons not confined to the breast, but are also found on the loins, and most frequently on the groin, while none have hitherto been found in the Storks. Now, how far *Balæniceps*, in addition to the powder-down patches on the breast, also wants others must remain for more complete investigation. Mr. Bartlett, in his notice, says nothing about it. The affinity which the author believes to exist between *Balæniceps* and the Storks unquestionably bespeaks their absence: but at the same time it must not be overlooked that these powder-down patches are not exclusively characteristic of the Herons; for they are not only found on the loins of the genus *Eurypyga* (the separation of which from the Herons many perhaps will complain of, though with them their presence cannot in consequence be of significance), but even in birds of quite different orders, for instance, in some of the Birds of prey.

Should it be asked which of the two often-named birds the whole appearance and outward character of *Balæniceps* most calls to mind, one must again answer, *Scopus*. Its extraordinarily large head, and the comparatively short but very thick and ponderous neck thereby necessitated, not only in themselves remind us more of *Scopus* than of *Cancroma*, but the colossal proportions of these members would be a complete anomaly in a Heron, while it scarcely needs to be remarked that there are Storks which in size of head and thickness of neck are hardly inferior to *Balæniceps*.

A short exposition of the author's views of the genus *Balæni-*

---

* 'Proceedings of the Zoological Society of London,' 1860, p. 461.

ceps was last autumn laid by him before the Zoological Society of London, of which he has the honour to be a foreign member, and was printed in the Society's 'Proceedings'*. He has, nevertheless, again treated the subject here, because he feels convinced of being still better able to substantiate the correctness of his opinion. Until a short time ago, nothing had been made known concerning the internal structure of this remarkable bird. The author himself, when making his first communication on the subject, had but a single stuffed specimen at his disposal, and therefore was only able to consider its outward form. He was, however, of opinion that the question of its affinities could be solved with tolerable safety from its external characters. He does not share the somewhat general opinion that the so-called anatomical characters derived from the internal structure should of themselves, and in all cases, be preferred to the external ones; but he of course acknowledged that, in *Balæniceps,* these, and especially its skeleton, might furnish important elucidation of its real affinities. He is now able to take at least the skeleton into consideration, partly since he has lately procured a cranium of this rare bird for the Royal Museum, and partly because Mr. W. K. Parker has made use of the opportunity offered by the death of one of two *Balænicipites* brought alive last year to London, to make its osteology the subject of an investigation, which he had communicated to the Zoological Society at the meeting immediately preceding that at which the author's notice of this bird was read, and an account of which has been since printed in the Society's 'Proceedings'†.

First, as regards the skull, in which certain peculiarities are at once perceptible, to be found neither in *Scopus* nor in *Cancroma,* indeed neither in the Storks nor Herons. But these, in fact, are only the result of the extraordinary development of the bill; and some of them, at all events, are noticeable in particularly large-billed birds belonging to entirely different orders. Of such peculiarities, very interesting in themselves, but of little moment in regard to the affinities of *Balæniceps,* must particularly be named the complete anchylosis of all the different bones forming the lower jaw, so that there is not the least trace left of the sutures between them,—a circumstance likewise found in the Hornbills, Toucans, and Parrots. Next must be considered the very extraordinary clumsiness of the zygomatic arch, which, with a length of two inches, is four lines thick and six to seven lines high, thus offering dimensions which it does not obtain, even approximately, in any other bird. Lastly, the proportions of the lachrymal bone are to be observed. This bone is not only brought forward in front of the hinge between the bill and the brain-pan, as is the case, though rarely, in some other birds, but its vertical branch also is throughout its whole length anchylosed with the bill, so that the larger or smaller aperture leading to the nasal cavity, and otherwise found between these parts, entirely disappears. In consequence it seems at first sight as if, against all rule, it was the bill itself that forms the boundary to the orbit; a formation to which at the utmost but a distant analogy can be shown in the Owls, and partly in the Hornbills, inasmuch as with them the lachrymal bone approaches close to the bill, but does not unite with it.

---

* P. Z. S. 1860, p. 377.

† P. Z. S. 1860, p. 324.

When the special characters just discussed are set aside, it will not be difficult to demonstrate in the skull of *Balæniceps* an essential correspondence with *Scopus* and the Storks generally, and particularly a greater resemblance to them than to *Cancroma* and the Herons. A pervading difference between the skulls of the Herons and the Storks consists in the cranium proper, or brain-pan, being comparatively much longer in the former than in the latter, whereupon follows a corresponding difference in the length of the zygomatic arch. In other words, the Herons are distinguished by a considerably elongated brain-pan, while in the Storks the brain-pan is comparatively short. This contrast can hardly be overlooked, whatever forms of the groups in question be examined; but it is most conspicuous when two, the heads of which have about the same absolute length, are selected, for instance, the Common Bittern (*Botaurus stellaris*) and *Scopus umbretta*. It will then be found that in the former the brain-pan (measured from the moveable supra-maxillary hinge) is nearly half the length of the latter, and not quite one-third that of the cranium, and that the zygomatic arch is precisely twice as long in the former as in the latter. In entire accordance herewith, the zygomatic arch in *Cancroma* is almost twice as long as in *Scopus,* though the skull of the former is somewhat shorter than that of the latter. In this comparison *Balæniceps* agrees fully with the Storks. The broad and particularly short brain-pan is precisely one of the most prominent features of its skull; and it even surpasses in this respect both *Scopus* and the other forms of the family, with the exception perhaps of *Anastomus.* Notwithstanding the extraordinary difference in the size of each of these birds, the immensely clumsy and thick zygomatic arch in *Balæniceps* is hardly longer than in *Cancroma,* and it is superfluous to explain how much shorter it must be comparatively, and how great a difference in this respect exists between these two genera. Comparatively, also, the zygomatic arch is shorter in *Balæniceps* than in *Scopus,* and would be still more so if the extremity of the brain-pan was the only point whereby its length could be determined. But it is also affected partly, though in a small degree, by the position of the tympanic bone; and as this is nearly perpendicular in *Balæniceps,* while in *Scopus* it is placed obliquely with its lower end (to which the zygomatic arch is attached) in front, the latter does not reach backwards so far in the last as in the first-named bird, and accordingly is somewhat shorter than the length of the brain-pan required. Just as *Balæniceps* resembles *Scopus, Anastomus,* and the other Storks in the shortness of the zygomatic arch, so it also harmonizes with them in its oblique position, and, to be brief, makes therewith a considerable angle with the bill, while in the Herons it is on a level.

Another difference in the skulls of the Herons and of the Storks seems to be that the partition between the orbits in the former is broken by a large aperture, filled only by a nervous membrane, while no such aperture is found in Storks, and especially not in *Scopus, Anastomus* (*lamelligerus*), or *Leptoptilus* (*javanicus* and *dubius*). In this point also *Balæniceps* follows *Scopus* and the Storks, whereas *Cancroma,* as far as the author can infer from the somewhat imperfect cranium of this bird at his disposal, approaches the Herons.

It has been already stated that in *Balæniceps* is found a real hinge between the brain-pan and the bill. It is hardly less developed than in the Parrots; but it is situated much further back than in them, since, on account of the peculiar position of the lachrymal bone, it is placed above the anterior portion of the orbit, and not, as usual, in front of it. Neither in *Scopus* nor in *Cancroma* is there such a hinge; but its exemplification is found both in *Leptoptilus* and *Tantalus,* which have a deepish cross-suture increasing the mobility of the bill, while the author has not found the least trace of such a peculiarity in the Herons. So far then this hinge is a less aberrant character in *Balæniceps,* if the bird be considered as most nearly allied to the Storks, than if it be made a Heron-like form connected with *Cancroma.*

Mr. Parker has justly urged the forward position of the lachrymal bone as a peculiarity of the cranium in *Balæniceps*; however, as already remarked, the bird does not stand alone in this respect, for in the Owls that bone is situated in front of the supra-maxillary hinge. What, however, ought to be insisted on, and what Mr. Parker, who only compared *Balæniceps* with one Stork (the Adjutant), has not remarked, is that the very position of the lachrymal bone refers the bird to the Storks more than to the Herons. For, in *Scopus,* the same bone is already advanced, so that its anterior extremity reaches a little in front of the cross-line, by which the pliability of the bill is effected, though in this bird it is not marked out by any suture in the bone; while in *Anastomus* the lachrymal bone reaches fully three-fourths of its length in front of the line in question, so that in this respect there is but a short step from it to *Balæniceps.*

The case is the same with another character in the cranium of *Balæniceps* insisted on by Mr. Parker—the small boss or knot formed by the ridge of the bill a little behind the nostrils. In *Cancroma* and the Herons it is certain that no trace of it can be found, and the base of the bill has here quite a different form. But, on the other hand, one has only to hold the cranium of *Scopus* alongside that of *Balæniceps* to perceive at once that it is the same type which prevails in this part of the skulls of both; and there will be found a still greater likeness shown by *Balæniceps* in this and other particular points to another frequently mentioned Stork, namely *Anastomus.*

It has been already remarked by Mr. Parker that there is no harmony between *Balæniceps* and the Herons in regard to the bones of the palate, and that in this respect it rather resembles the Adjutant and Pelicans, particularly the latter, inasmuch as these bones anchylose posteriorly, and along the line of anchylosis there stands out a prominent crest just as in *Balæniceps*. A nearer comparison, however, shows that the resemblance to the Pelicans extends to these two points only, and that the palatal bones of the latter serve as a support to the inter-orbital septum (*os ethmoideum*) for a very short way only, and that for the rest, compressed into an extremely sharp keel, they extend underneath as far as, but at a considerable distance from, the septum, which also terminates in a sharp edge. In *Balæniceps*, on the contrary, the highly anchylosed palatal bones are hollowed out just above into a deep channel, which receives the lower rounded and thick margin of the inter-orbital septum, and slides backwards and forwards on it. But this development of the palatal bones is also exactly characteristic of the Storks in general, of *Anastomus*, and of *Scopus*, and in the latter they are found anchylosed posteriorly just as in *Balæniceps*.

The inter-articular bones (*ossa pterygoidea*) are not exactly those in the structure of which substantial grounds for making *Balæniceps* rather a Stork than a Heron can be expected to be found; still their short powerful form does more towards ranking it with the former than the latter group. And, lastly, in regard to the tympanic bone, which most decidedly, together with certain similarities to, also presents differences from, that of *Scopus*, we remark that these differences do not bring it any nearer the same bone in the Herons. This distinction is especially shown in the peculiar form of the articulating surfaces of the lower jaw, which are found to be in front of and inside the setting-on of the pterygoids. In *Balæniceps* the articulation is effected by two condyles of unequal size and height, to which corresponds a socket on the lower jaw, in form of two channels separated by an intervening ridge, so sharply defined and so closely embracing the articulating surface of the tympanic bone, that, in contemplating the dried skull, one is at some pains to comprehend how it can admit of the requisite mobility. Just as little in *Scopus* and other members of the Stork group does the corresponding articulation show a similar form. But, as already remarked, it is equally as little the case with the Herons, in which the process, verging inside towards the orbit, is at the same time turned; so that, contrary to what is seen in *Balæniceps* as well as in *Scopus* and the Storks generally, it does not present an angular but a flat surface above towards the brain-pan.

The skull is the only part of the skeleton of *Balæniceps* which the author has himself seen. Of all the remainder he has only such knowledge as he can glean from Mr. Parker's investigations of the bird's osteology; and it is but an abridgement from them that he has at his disposal,—the entire paper intended to be embodied in the Zoological Society's 'Transactions,' if it has already appeared, not having yet met his eye*. It cannot be expected that this abridgement in every particular point should give a full explanation; and further, Mr. Parker, who considers *Balæniceps* as "strictly an Ardeine bird," and "more nearly related to *Cancroma* than to any other known type," having taken no notice of *Scopus* in the comparisons he has instituted between the former bird and sundry others, it is very possible that there may be similarities as well as dissimilarities between the bony structure of the body and limbs of *Balæniceps* and *Scopus* which have escaped the author. He believes, however, from the short description of the English naturalist, that the similarities can be proved to predominate.

From what Mr. Parker remarks, it may be seen that the osteology of *Balæniceps* differs in many points from that of *Cancroma,* in spite of the near affinity which he thinks exists between them. Thus, for example, a difference appears in many respects in the sternum and furcula, and the former is (in Mr. Parker's words) intermediate between that of the Stork and the Cormorant. For in one way its keel, as in the last-named bird, extends further in front of the articulation of the coracoids than in the Herons and Storks; and again, the furcula, as in that bird also and in the Pelicans, is completely anchylosed with the extremity of the sternal keel. Moreover the latter is lower than in the Herons, the so-called *spina sternalis* is wanting, and, in addition to the emargination at the posterior end of the sternum which appears in the Herons and Storks, there exists another and smaller one, nearer the keel. The sternum of *Balæniceps* differs more from that of *Cancroma* than from that of the Herons proper, in which the sternal keel is connected with the furcula by means of an articulation, as this in *Cancroma* does not touch the sternum. Neither, however, is that the case in *Scopus*; and it must be confessed that the points in which *Balæniceps* is said to differ from *Cancroma* separate it also from *Scopus*. But they are of little weight; even the most striking of them, the anchylosis of the furcula with the sternal keel, may, as Mr. Parker shows, be suddenly revealed in one peculiar member of a family or even of an order* where it generally does not appear, as it may be also found in some and wanting in other birds more nearly related to each other†.

---

* This has lately been published, and forms Part 6, vol. iv. of Trans. Zool. Soc.; *vide antea*, pp. 78, 79.—Transl.

But even if, from what Mr. Parker states respecting the sternum of *Balæniceps*, no sure conclusions can be drawn regarding its affinity to either of the birds so often named, or to the Storks rather than to the Herons, it is not therefore impossible to derive reasons from this bone in favour of adopting one opinion rather than the other; for a very perceptible difference in the sternum seems to prevail between the Herons and the Storks. In the former (*Ardeæ cinerea, herodias*, and *egretta*) the right coracoid is attached with its inner and lower angle lapping over the left, and the sockets or articulating surfaces of these bones on the most prominent rim of the sternum are thereby rendered quite crooked and unsymmetrical. In the Storks (*Ciconia nigra, Leptoptilus javanicus*) these articulating surfaces are, on the contrary, symmetrical; and *Scopus*, in this as in so many other points, harmonizes with them. I regret not being able to speak as to *Cancroma* in this respect; but no further explanation is needed to show that it would be important to obtain information on the subject, and also to ascertain whether *Balæniceps* herein agrees with the Herons or (as I consider will be most probable) with the Storks.

---

* For instance, the Secretary (*Serpentarius reptilivorus*) among the birds of prey.

† The anchylosis is found in *Grus antigone* and *G. americana*, but not in *Balearica pavonina*.

The pelvis, from its long narrow form, is said to resemble that of *Cancroma* more than that of either the Storks or Herons, but also to differ from all these birds in not expanding anteriorly in the form of a plate, so as to cover the upper extremities of the posterior ribs. On the strength of this brief description, it is difficult to say how great or how little harmony it may display with that of *Scopus,* in its entire formation. But in one, though not very important, point it resembles that of the latter more than that of *Cancroma,* inasmuch as the side-bones (*ossa ischii*) reach further back than the hip-bones (*ossa ilii*), exactly as in *Scopus,* while just the reverse is the case in *Cancroma.*

Finally, when one turns to the vertebræ and the ribs, there will be found in some of the cervical vertebræ of *Balæniceps* a canal formed by a small bony bridge on the lower side of these bones upwards towards their anterior extremity, along which the carotid artery runs,—a peculiarity which is also possessed by the Herons and *Cancroma,* besides some other birds (*Pelecanus, Sula*), but is wanting in *Scopus* and the great majority of the Storks. Still in these it is not entirely unknown, since, as Mr. Parker shows, it occurs in *Mycteria australis.* Thus it is not, even in the order of Waders, an exclusive character of the Herons, and its absence or presence cannot be of very great value. A greater importance might be attached to the number of vertebræ in the different portions of the vertebral column, as well as to the number and relative position of the ribs; and herein, as appears from Mr. Parker's own statement, *Balæniceps* harmonizes both with *Scopus* and furthermore with the Storks, but differs entirely from *Cancroma,* which again in this circumstance approaches the Herons as much as *Balæniceps* does the birds just named.

Indeed, in *Balæniceps,* as in *Scopus* and *Leptoptilus,* there are found twenty-one separate and reciprocally moveable vertebræ between the head and the sacrum; and in the true Storks the number is even less by one. On the contrary, the Herons and *Cancroma* have twenty-three vertebræ within that space. Of these, fifteen are cervical vertebræ in every member of the group with the exception of the true Heron (*A. cinerea*), which has sixteen; and thus it is in the number of the dorsal vertebræ, and consequently of the ribs also, that the difference becomes most manifest. *Balæniceps, Scopus,* and *Leptoptilus* have six reciprocally moveable dorsal vertebræ, and the White Stork five*; *Ardea,* on the contrary, has seven, and *Cancroma* as many as eight. Perhaps the harmony in the number and position of the ribs is still more striking. For in *Balæniceps,* as well as in *Scopus, Leptoptilus,* and *Ciconia,* there are seven pairs of ribs. Of these, with the exception of *Scopus,* which has only one so-called false rib on either side, the two anterior pairs are false ribs, which do not touch the sternum. In none of them are found any posterior false ribs; for even the single or (in the White Stork) the two pairs which are attached to the sacrum and pelvis reach the sternum and are furnished with sternal costæ. In *Cancroma* and *Ardea* the proportion is essentially different; for these birds have respectively nine and eight pairs of ribs, of which in *Cancroma* the four, and in the Heron the three, anterior pairs are false ribs; and although in these birds the posterior pair are attached to the pelvis, yet, according to Mr. Parker, they do not touch the sternum as is the case in the Storks.

Thus it also appears that in the osteology of *Balæniceps* there is manifested a preponderant approximation to *Scopus* and the Storks, rather than to *Cancroma* and the Herons. It is not, however, intended to be denied that there are some few points in which a similarity to *Cancroma* may not likewise be traced. The study of the skeleton of *Balæniceps,* therefore, confirms clearly the result to which the examination of its external characters had led; and, in the author's opinion, this bird, together with *Scopus*, forms a small separate group among the Storks (*Ciconinæ*), to which perhaps *Anastomus* might be added.

---

* Nevertheless the whole number of dorsal vertebræ in the White Stork is not really less than in its allied genera. For in all the other birds named above, Herons as well as Storks, there is one pair of ribs attached to the sacrum and back, but in the White Stork, on the contrary, there are two pairs so attached. The fact is, that in the last-mentioned species two true dorsal vertebræ coalesce with the sacrum, but in all the others only one. This difference which appears between the White Stork and all its allies, in the number of free vertebræ lying between the head and sacrum, is also without real significance, since taken absolutely all the Storks here mentioned have fifteen cervical and seven dorsal vertebræ; *Cancroma* and the Herons, on the other hand, have fifteen and eight, or sixteen and seven.

Postscript.—During the interval which has elapsed between the presentation and the printing of the above notice, the author has received some new information respecting the structure of *Balæniceps*, which induces him to add two further observations.

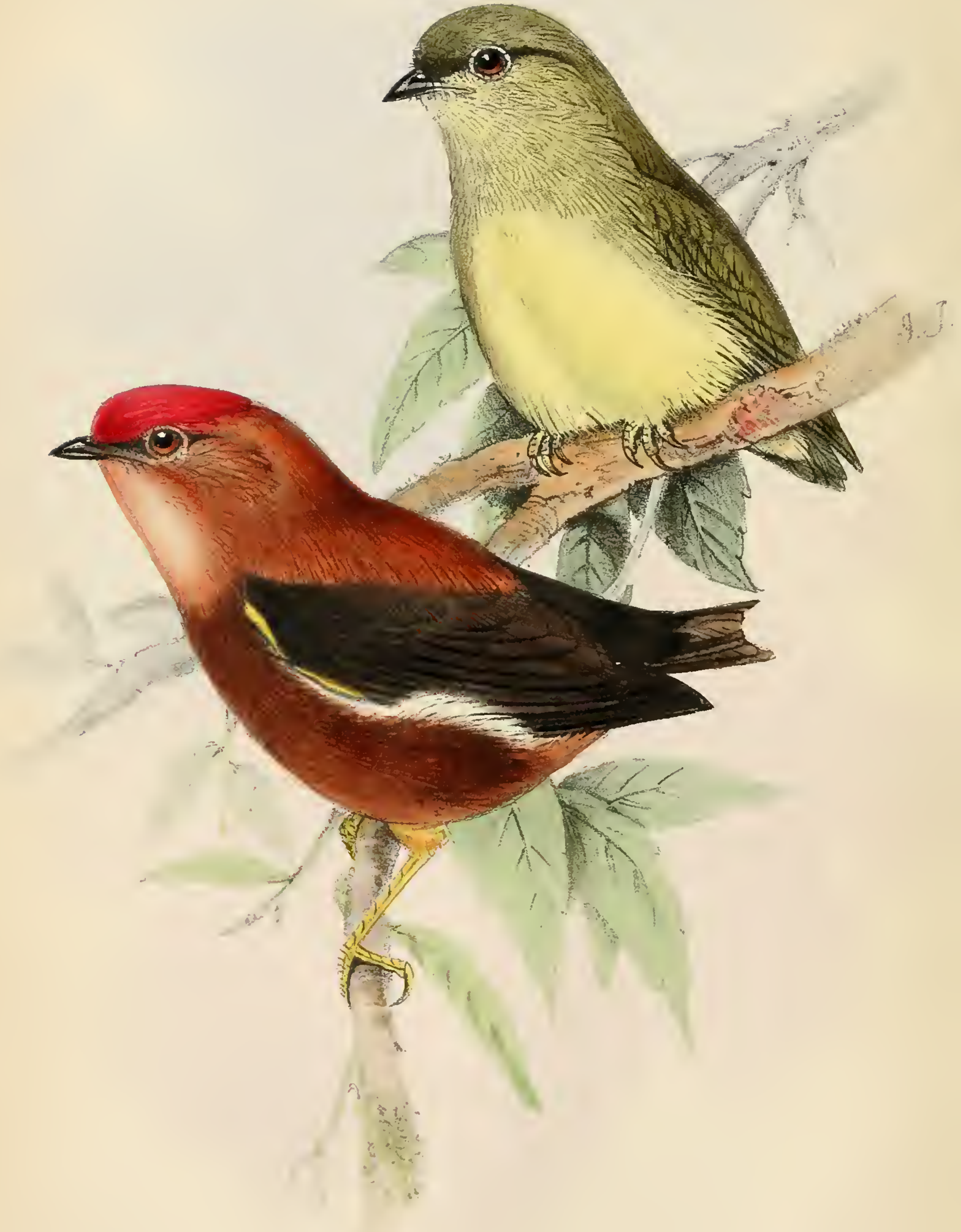
The August number of the 'Annals and Magazine of Natural History' has brought him a report of the proceedings at the Zoological Society's Meeting of the 26th of March, 1861, containing a short communication from Mr. Bartlett on a new investigation of the bird in question, which he had had the opportunity of instituting after the last of the *Balænicipites* sent to the Zoological Gardens had died.

The most important discovery which Mr. Bartlett has made on this occasion is, that over the loins there is a large powder-down patch, or, it may be said, two patches united posteriorly [*], which he had not before noticed when examining the living bird. But this patch is the only one that exists. Neither on the breast nor on the groin is there a trace of one, and so far his former statement is corroborated. That such a powder-down patch is a curious anomaly in a Stork, and a surprising approximation to the Herons, cannot be denied; and Mr. Bartlett does not hesitate to see in its existence a decisive proof that *Balæniceps* must accordingly be reckoned among these last. The author, however, cannot attach so great an importance to the powder-down patch. It does not seem to him admissible that it should weigh more than the pervading affinity to *Scopus* and the Storks, which in so many ways otherwise shows itself in *Balæniceps*. Nor is it without moment that the patch discovered is precisely that which is occasionally found out of the Heron group, while there is no trace of the breast or groin patches which are exclusively peculiar thereto. Mr. Bartlett seems to doubt the correctness of Nitzsch's assertion that such loin patches sometimes appear in other birds besides the Herons. But there is no reason whatever for such a doubt; and had he only examined some of the birds which Nitzsch names, as *Nauclerus furcatus, Elanus melanopterus,* and the species of *Circus,* he would certainly have easily found them, for they are indeed large enough. At all events Mr. Bartlett's discovery does not prove any very great approximation to *Cancroma.* On the contrary, if *Balæniceps* should really be referred to the Herons, there is not one of them from which it should not be further removed than from that genus, in regard to the powder-down patches. For, besides the three pairs known previously in *Cancroma,* Mr. Bartlett has discovered a fourth pair, placed between the shoulders, and overlooked by Nitzsch. That this interesting observation is quite correct, I have had the opportunity of ascertaining for myself in several skins of this bird. Nor should it be forgotten that, though powder-down patches certainly form a very important pterylographic distinction between the Herons and the Storks, yet they are not the only one. Independently of them, from the pterylosis of *Balæniceps* there can be unquestionably deduced either one or the other opinion. It is therefore much to be regretted that Mr. Bartlett says nothing else about the position of the feathers, and so does not appear to have profited by the excellent opportunity he had of becoming acquainted with it.

---

[*] Mr. Bartlett in his notice says there are "two large, well-defined powder-down patches" (*l. c.* p. 187); but the woodcut annexed presents the appearance spoken of above.

Setting aside the degree of importance to be attached to the observation consequent on the discovery of the loin patch in *Balæniceps,* there has been really proved, as above admitted, an approximation between that bird and the Herons; but otherwise the author has found nothing whatever in Mr. Bartlett's notice which can be said to be demonstrated. It is certainly asserted that *Balæniceps,* in regard to its intestines, agrees generally with the Herons: "the stomach, liver, intestines, &c., of the two birds appeared exactly to correspond in structure and arrangement." But that this rather vague statement, enunciated as a generality, should be taken according to the strict sense of the words, can hardly have been Mr. Bartlett's intention; for in order to be invested with any especial force of proof, it ought to have been declared as well, whether *Scopus* and the Storks



J. Jennens del et lith

M. & N. Hanhart Imp.

MACHÆROPTERUS DELICIOSUS

differ essentially from the Herons in these particulars. If they do not, the statement proves nothing either one way or the other. And when it is finally said, in the notice, that the skulls of *Scopus* and *Balæniceps* are so entirely different that it is useless to enter upon further details respecting them, the comparison above instituted will, the author thinks, prove not only that there are similarities, but such as are neither few nor insignificant, and that it is Mr. Bartlett's own fault if he did not become aware of them.

The author therefore cannot, by this new plea in the discussion on the affinities of *Balæniceps*, find himself induced to alter the opinion he has endeavoured to substantiate, partly in his former communication to the Zoological Society's 'Proceedings,' and partly in the representation here given.

XX.—*Note on* Pipra deliciosa. By P. L. Sclater.

(Plate VI.)

In one of my lists of the birds collected by Mr. Fraser in Ecuador, published in the Zoological Society's 'Proceedings' for 1860, I proposed the name of *Pipra deliciosa* for a new Manakin, of which examples were obtained at Nanegal, and gave some remarks on the abnormal structure of some of the wing-feathers exhibited by the male of this species. I was not then aware that a very similar structure occurs in two other members of the group of *Piprinæ*—namely, in *Pipra regulus*, of Brazil, and *Pipra striolata*, of New Granada,—although the abnormal growth is not carried to such an excess of development in these birds. But the first three secondaries are curved, and the next following thickened at the stems, in the males of these two species, nearly as is the case in *Pipra deliciosa*. I think, therefore, that the latter bird ought to be removed from the typical *Pipræ* to the genus *Machæropterus*. This term, evidently referring to the peculiar structure of the wing, was employed for *Pipra regulus* and its allies by Prince Bonaparte in 1854*, having been taken by the Prince from Dr. Schiff's MS. names in the Frankfort Museum.

---

* See Conspectus Volucrum Anisodactylorum, auctore Carolo L. Bonaparto, in Ateneo Italiano, No. 11, August 1854.

The known species of the genus *Machæropterus* will, therefore, stand as follows:—

1. MACHÆROPTERUS REGULUS.

Pipra regulus, Hahn, Ausl. Vög. Lief. 4. pl. 4. f. 1, 2. *Pipra strigilata*, Wied, Reis. n. Bras. i. p. 187, et Beitr. iii. p. 430; Temm. Pl. Col. 54. f. 1, 2; Licht. Doubl. p. 29; Sw. Orn. Dr. pl. 25; Bp. Consp. p. 174; Burm. Syst. Ueb. ii. p. 445. *Pipra lineata*, Thunb. Mém. Acad. Pétersb. 1822, p. 284. pl. 8. f. 1. *Machæropterus strigilatus*, Bp. Consp. Vol. Anisodact. p. 6. *Machæropterus regulus*, Cab. et Hein. Mus. Hein. ii. p. 94.

Hab. S.E. Brazil.

2. MACHÆROPTERUS STRIOLATUS.

Pipra striolata, Bp. P. Z. S. 1837, p. 122, et Consp. p. 174; Gray et Mitch. Gen. B. i. p. 274. pl. 67. f. 2; Sclater, P. Z. S. 1855, p. 152, 1857, p. 265, et 1858, p. 72. *Pipra strigilata*, Wagl. Isis, 1830, p. 936. *Machæropterus striolatus*, Cab. et Hein. Mus. Hein. ii. p. 94.

Hab. Venezuela and New Granada.

3. MACHÆROPTERUS PYROCEPHALUS.

Pipra pyrocephala, Sclater, Rev. et Mag. de Zool. 1852, p. 9, et Contr. Orn. 1852, p. 132. *Machæropterus pyrocephalus*, Bp. Consp. Vol. Anisodact. p. 6; Cab. et Hein. Mus. Hein. ii. p. 94 (note).

Hab. Peruvian Amazon.

Obs. It was supposed at Paris that the typical example of this species (which I described in 1852) was from Bogota, but examples collected by Mr. Hauxwell on the Ucayali and Huallaga show that the wood-region of Eastern Peru is its real home.

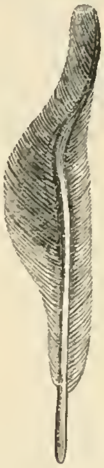
4. MACHÆROPTERUS DELICIOSUS. (Plate VI.)

Pipra deliciosa, Sclater, P. Z. S. 1860, p. 90.

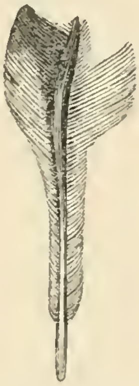
Hab. Western Ecuador.

To accompany the figure herewith given of this charming species, I extract my remarks on the curious structure of its wings, as given in the ‘Proceedings’ of the Zoological Society:—

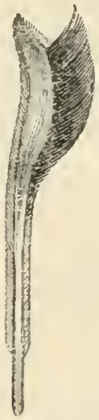
“This Manakin is one of the most brilliantly coloured birds of the charming group to which it belongs; and the male bird is further remarkable for the very curious structure of its wings, which merits a detailed description. The ten primaries are of the ordinary formation of birds of this family, the first being shorter than the second, third, and fourth, which are nearly equal and longest, and of about the same length as the sixth.



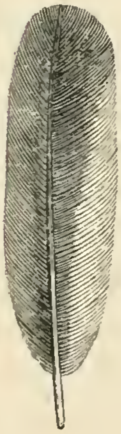
a



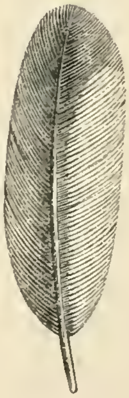
b



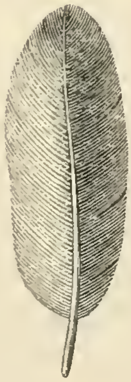
c



a′



b′



c′

The first three secondaries are thick-stemmed, and curved towards the body at a distance of about two-thirds of their length from the base. The fourth and fifth show this structure to a greater degree, with some corresponding alteration in the barbs on each side, as may be seen by comparing fig. *a*, representing the upper surface of the fifth secondary of the male bird, with fig. *a′*, which gives a similar view of that of the female. In the sixth and seventh secondaries of the male the terminal half of the *rachis* is thickened to an extraordinary degree, forming a solid horny lump.

The external and internal barbs are also much modified in shape and generally curtailed in size. Fig. *b* gives an upper view of the sixth, and fig. *c* an under view of the seventh secondary. The corresponding feathers of the female, representing the normal structure, are seen in fig. *b*′ and fig. *c*′. In the eighth and ninth secondaries the *rachis* is still rather thickened; but the barbs (*pogonia*), instead of being reduced in size, are highly developed, particularly on the inner side. Mr. Fraser states that the wing-bones of these birds were also much thickened, no doubt in aid of this abnormal structure of the *remiges*."

XXI.—*Recent Ornithological Publications.*

1. English Publications.

We have already noticed at some length von Schrenck's important work on the Fauna of Amoorland[*]. It will not therefore be necessary to say much concerning Mr. Ravenstein's 'Russians on the Amoor[†],' the chapter in Mr. Ravenstein's volume devoted to the natural history of this region having been based upon v. Schrenck's discoveries. But we take this opportunity of cordially recommending Mr. Ravenstein's work to those who are desirous of knowing what has been done by Russia and is now going on in this part of the world. They will be pleased to find in Mr. Ravenstein's *résumé* a succinct account of the history, geography, ethnology, climate, and natural productions of this little-known region, and may save themselves the necessity of hunting for the requisite information on these subjects in the in many cases inaccessible original authorities published in Russia.

Mr. Boner's recent unpretending little work[‡] contains some few interesting particulars of the habits of the Capercaillie (*Tetrao*

---

[*] Ibis, 1861, p. 203.

[†] The Russians on the Amoor; its discovery, conquest, and colonization. By E. G. Ravenstein, F.R.G.S. London: Trübner & Co. 1861, 1 vol. 8vo.

[‡] Forest Creatures. By Charles Boner, &c. London, 1861 (1 vol. 12mo, pp. 245).

urogallus), Black-Cock (*T. tetrix*), and Golden Eagle (*Aquila chrysaëtus*), as observed by the author in Southern Germany. The custom of shooting the males of the two first-mentioned species just prior to the breeding-time is not confined to Scandinavia. Of the last Mr. Boner says (p. 162), "that it has frequently been seen soaring above the summit of the Wetterhorn and the Eiger Mountains, whose heights are 11,412 feet and 12,240 feet respectively." The extraordinary bird's-nesting feat of the amateur acrobat, Count Arco, which found its way into the newspapers last summer, is fully recounted. Mr. Boner's criticisms (pp. 176-8) on the knowledge of Eagles possessed by Sir Humphry Davy and Professor Wilson are not, we think, altogether to the purpose. The bird spoken of by the author of 'Salmonia,' which "dashes into the water, falling like a rock, and raising a column of spray," was of course an Osprey (*Pandion haliaëtus*), and the action was no unwonted sight to that accomplished fisherman. Further, we suspect that in former days in Scotland it *was* "the commoner occurrence for there to be *several* eaglets in a nest," as is to be inferred from 'Christopher North's' expressions. We know of many instances in which *two* have been so found; indeed a case is recorded in our last volume ('Ibis,' 1860, p. 112); and, if we are not misinformed, Mr. Wolley on one occasion discovered *three fertile* eggs in a Golden Eagle's nest. Mr. Boner has great cause to complain of his engraver, who has contrived to mar the skill of the artist by his exceedingly coarse work. The tournament between the two Black-Cocks is well conceived, and the absurd attitude of the Capercaillie uttering his love-song—which we have here seen depicted for the first time—is very good, though in both illustrations the birds are mounted on legs suggestive of stronger *Columbine* affinities than most ornithologists accord to the *Tetraonidæ*.

In the 'Natural-History Review' for January 1862 (pp.26–52), Mr. Lubbock has given an account of the archæontological researches recently carried on in Switzerland, which is as full of interest, if not of novelty, to the English public as his former paper, noticed in our last Number ('Ibis,' 1862, p. 76). The “pile-buildings” or “lake habitations” of the ancient inhabitants of Helvetia have been described by several authors—by MM. Morlot, Trogon, and Keller among others. The animal remains found among their ruins have been investigated by Professor Rütimeyer in two works, of which the last published, ‘Die Fauna der Pfahlbauten in der Schweiz,’ contains all that we at present know on the subject. Bones of no less than eighteen species of birds have been recovered from these monuments which the early European races unconsciously heaped up to their own memory. The species, according to Mr. Lubbock, are the following:—

Aquila fulva.
—— haliaëtus (?).
Falco milvus.
—— palumbarius.
—— nisus.
Strix aluco.
Sturnus vulgaris.
Cinclus aquaticus.
Columba palumbus.
Tetrao bonasia.
Ardea cinerea.
Ciconia alba.
Fulica atra.
Larus (*sp. indet.*).
Cygnus musicus.
Anser segetum.
Anas boschas.
—— querquedula (?).

None of these indicate, as in the case of those met with in the Danish “Kitchen-Middens,” any remarkable changes in the physical aspect of the country. They were all from old settlements of the most ancient or “Stone” period; but the discovery of a single bone at a station of the “Bronze” age, and attributed by M. Rütimeyer to the Barn-door Fowl (*Gallus domesticus*), is more suggestive to antiquarians.

Dr. Bree continues his laudable efforts to make English ornithologists take a greater interest in the ‘Birds of Europe not observed in the British Isles,’ the forty-third part of his work having made its appearance on the 1st of March last. While we heartily congratulate the author on the general results of his labours, we must confess we cannot view with approbation his repeated attacks upon the Darwinian theory of the origin of species. Of course every one has a right to his own opinions on a question so fraught with difficulties, and we are not now expressing any decided sentiments respecting it. But more than a year ago, Dr. Bree published a volume* especially designed to refute the mischievous tendencies of Mr. Darwin's hypothesis; and as hitherto the learned author of the celebrated treatise 'On the Origin of Species by Means of Natural Selection' has not thought fit to reply to Dr. Bree's objections, we should have imagined the latter gentleman might have contented himself, if he has any faith in his own views, with the supposition that they were *unanswerable,* and accordingly have refrained from further notice of the subject. On the contrary, of Dr. Bree, as of Alexander, it may be said that "thrice he slew the slain," for at least as many times quite recently has he taken occasion to celebrate the triumph of his teleological arguments over those adduced by his enemy.

We cannot recognize the validity of the reasons Dr. Bree urges for not giving due place to *Turtur rupicola* (Pall.) = *Columba gelastes,* Temm., and for omitting a figure of that *species,* as, in spite of Dr. v. Schrenck's opinion, we must advisedly call it. The British Museum contains several specimens of this Dove, and it seems to us to deserve recognition fully as much as *Hirundo cahirica.*

2. RUSSIAN AND SCANDINAVIAN PUBLICATIONS.

The fourth number of the 'Bulletin de la Société Impériale des Naturalistes de Moscou,' for 1860 (vol. xxxiii. p. 488), contains a paper by M. J. Schatiloff on the birds he has collected in Tauria†. M. Schatiloff's station of observation is at Schatilofka, a village situated at the embouchure of the Karam into the Putrid Sea. He began collecting in 1854 in company with M. H. G. Radde, the well-known naturalist of the Russian Scientific Expedition to Amoorland. To the 185 species enumerated by the latter gentleman in his 'Beiträgen zu der Ornithologie Süd-Russlands,' M. Schatiloff has been enabled to add 33 others, and in his catalogue altogether enumerates 228 species. As M. Schatiloff himself admits, this cannot be considered a complete list of the birds of the Chersonese, as other species have been recorded by competent authorities who have written on the fauna of this region. Nevertheless M. Schatiloff's paper may be consulted with advantage, being good as far as it goes.

---

* Species not Transmutable, nor the Result of Secondary Causes, &c. By C. R. Bree, M.D., F.L.S. London, 1860.

† Katalog meines ornithologischen Museums der Vögel Tauriens. Von J. Schatiloff.

The only contribution to ornithology we have to record from Denmark is the paper on the structure and affinities of *Balæniceps* by Professor Reinhardt, of which we give a translation in our present Number. This question seems likely to become a *cause célèbre* in ornithological controversy. Might we be allowed to suggest that the distinctions between the *Ciconinæ* and *Ardeinæ* require more precise definition than has as yet been laid down? We think that this step is necessary before the discussion is carried further.

The ninth part of Professor Sundevall's 'Svenska Foglarna' has been published. This work, to which we have already several times alluded, will no doubt be found as useful to his countrymen as it is instructive to foreigners. The author is a particularly safe guide, and though we may not entirely agree with his somewhat peculiar ideas on systematic arrangement, all his writings deserve the best attention of ornithologists.

Herr Conservator F. W. Meves, who a few years ago so luckily stumbled on the true explanation of the bleating noise made by the Common Snipe (*Gallinago scolopacinus*) in the breeding season (P. Z. S. 1858, p. 199), has communicated two papers to the Summary of the Transactions of the Royal Academy of Sciences at Stockholm for 1860 (Öfversigt af Kongl. Vetenskaps-Akademiens Förhandlingar, 17de årgången).

The first is a "Contribution to the Ornithology of Jemtland," being an account of his travels in that province of Sweden, we suppose in the year 1859. He mentions (p. 202) that, on the 12th of February, a Thrush was obtained at Haga, out of a flock of Fieldfares and Redwings, which in colour and size is midway between those two species, resembling the former above, and the latter beneath. But in the last respect it also agrees with the mysterious *Turdus illuminus* of Löbenstein (Naum. Vög. Deutschl.

xiii. p. 286, pl. 356; 'Naumannia,' 1851, iv. p. 3, and 1852, iii. p. 67, cum fig.). Can it be a hybrid between *T. pilaris* and *T. iliacus*? The type-specimen of the so-called *T. illuminus* appears to have been killed some twenty years ago in Lusatia (Saxony), and was preserved in Baron von Löbenstein's collection at Lohsa (Tobias, 'Abhandl. Naturf. Gesellsch. zu Görlitz,' iv. i. p. 32). The remaining portion of Herr Meves' first paper, though containing valuable information, does not seem to call for further notice here.

The second communication made to the same volume by this industrious observer is not a little singular. It is "On the Red Colouring in *Gypaëtus*" (p. 487), a subject which has already attracted attention in this Journal ('Ibis,' 1859, pp. 85 & 177). By a simple chemical test, he ascertained that the red colouring is due to a superficial deposit of *oxide of iron* on the feathers, and he says that the colouring-matter on the eggs also arises from the same cause. He suggests that this stain is owing to the birds bathing in water containing iron in solution, but judiciously remarks that this point must be investigated in the birds' own homes. During his journey in Jemtland, noticed above, Herr Meves had observed the same peculiarity in some of the feathers of the Crane (*Grus cinerea*), which he then found to be caused by the presence of iron. We hope some of our readers may try an experiment with the feathers of Swans, which, especially in the wild species (*Cygnus ferus* and *C. minor*), are so often tinged with rufous.

3. AMERICAN PUBLICATIONS.

We have lately received the latter part of vol. vii., and the commencement of vol. viii., of the 'Proceedings of the Boston Society of Natural History,' which have been kindly transmitted to this Journal. They contain several articles on ornithology. Dr. Henry Bryant (p. 226) attempts to show that Sclater's identification of two birds from Bogota (*Turdus swainsonii* and *Vireo olivaceus*) with North-American species is erroneous. To the former he proposes to restore the name *Turdus minimus*, given to it by M. de Lafresnaye; for the latter he makes a new name, *Vireo bogotensis*.

Dr. Brewer (p. 305) gives a nominal catalogue of the Birds of Cuba, compiled from two lists furnished to him by Dr. John Gundlach of Havanna. He enumerates 251 species. Dr. Brewer also communicates (p. 308) a paper by Mr. F. Germain of Santiago, entitled "Notes upon the Mode and Place of Nidification of some of the Birds of Chili." Mr. Germain's notes relate to 69 species, the eggs of which were all collected by himself, and his specimens may therefore be depended upon as authentic. We should very much like to have further information concerning the nidification of *Pteroptochus albicollis* and of the other species of the same group found in Chili. It would be interesting to know whether they confirm the unmistakeable relationship which exists between these birds and *Menura*. The same volume contains also two notices by Dr. Henry Bryant (pp. 349, 367) on the nidification of some species of Sea-birds.

Two other contributions of Dr. H. Bryant to the same Journal have reached us only in the form of separate copies, for which we have to thank Professor Baird. Dr. Bryant's "Remarks on the Variation of Plumage of *Buteo borealis* and *B. harlani*" are of great importance, and we give an extract from his paper which clearly shows the conclusion he has arrived at:—

"On carefully examining a large series of specimens, principally in the collections of the Smithsonian Institution at Washington, and of the Academy of Natural Sciences at Philadelphia, I find that all of them, belonging to *harlani* ?, *insignatus, swainsonii, bairdii, oxypterus, borealis, montanus, calurus,* and perhaps *cooperi,* can be easily reduced to two very distinct groups, each of which is distinguishable by definite external characters, and in which the variations of plumage, though apparently so great if the extremes only are taken into consideration, can, it seems to me, be arranged in a series, in which the connexion of the different members may be readily traced. Of these two groups, or rather species, one, which should be called *B. borealis,* as the first-described, consists of that species, *montanus, calurus, harlani* ?, and probably *cooperi,* and is characterized by a very muscular body, stronger and larger bill, longer and more powerful tarsi, and a more rounded wing, the fourth quill generally the longest, the fifth little, if any, shorter than the third, and the first always shorter than the eighth. The other species, to which *harlani?*, *insignatus*, *swainsonii*, *bairdii*, and *oxypterus* belong, is distinguished by a more slender body, shorter and weaker tarsi, and a more pointed wing, the third quill generally the longest, the fifth considerably shorter than the third, and the first always longer than the eighth. It is a matter of some doubt what name should be assigned to this species. I have seen specimens which agree very exactly with Audubon's plate of *B. harlani*; and if they are really specimens of his bird, that name would have priority. Though his type-specimen in the British Museum is said by some of the English ornithologists to belong to the other species, I am inclined to doubt this, as there is a specimen of *B. fuliginosus* in the collection of the Academy marked *B. harlani* by Audubon himself, and it is almost impossible for him to have mistaken this bird for a Red-tailed Hawk. I shall therefore at present consider this species to be *B. harlani*. If the type in the British Museum should prove to be a different bird, *swainsonii*, as next in date, would take its place."

Dr. Bryant's "Monograph of the genus *Catarractes*" is also a valuable contribution to our knowledge of the ornithology of North America. But we strongly protest against the change of nomenclature, which Dr. Bryant is "sorry to propose" in this case, and which we should be still more sorry to accept. It is not our intention on the present occasion to enter anew into the oft-vexed question of the "law of priority," and how far it is to be carried back. We are content to refer Dr. Bryant to the admirable remarks on this subject made by the late Hugh Strickland in his various critiques upon Mr. G. R. Gray's 'List of the Genera of Birds*,' and, in accordance with his views, to remark, that if we once go back beyond Linnæus's perfected edition of the 'Systema Naturæ' (the 12th), we may be gradually induced to recognize the nomenclature of Ray, of Pliny, of Aristotle, and possibly even the names which some Biblical commentator may fancy were given by Adam to the beasts and birds in Paradise. We must, therefore, respectfully decline to aid Dr.

---

* See Ann. Nat. Hist. vols. vi. p. 410, vii. p. 26 (1841).

Bryant in endeavouring to resuscitate Mœrhing's long-forgotten term *Catarractes,* and shall continue to use *Uria* for this well-known group of *Alcidæ,* of which Dr. Bryant recognizes four species, namely—1. *troille* (Linn.); 2. *ringvia* (Brünnich); 3. *lomvia* (*brünnichii,* Sabine); 4. *californica,* Bryant.

The first three occur on the Atlantic coasts of Europe and North America; the last is the representative of *U. troille* on the Pacific, and may be considered as a climatal variety of that species.

A part of the 'Annals of the Lyceum of Natural History of New York' (vol. vii., Nos. 10-12), lately issued, contains three articles by Mr. George N. Lawrence relating to ornithology. Of two of these we have already said a few words *. The third is a second list of birds collected by Mr. McLeannan on the Panama Railway route during the winter of 1860-61, "with the assistance of Mr. John R. Galbraith, an intelligent and skilful young taxidermist," of New York. Nearly 300 specimens were obtained by these active collectors, comprising additional examples of nearly all the 142 species enumerated in the former catalogue, and of about 150 additional species. Several of the latter are described as new. Mr. Lawrence has materials accumulating for a third list of birds from this interesting locality, among which are the new species described in our last Number, and other rarities. We cordially wish Mr. Lawrence success in working out the ornithology of this interesting region. The forms require accurate comparison with those of Guatemala and New Granada, and will prove in many cases, as we can testify from inspection of those of them submitted to us by Mr. Lawrence, to be intermediate in characters as in locality.

In the recently published 'Proceedings of the Academy of Natural Sciences of Philadelphia,' pp. 145-384, for 1861, we notice, besides the two papers of Mr. Coues spoken of in our last Number, the following articles relating to birds:—

(1.) Description of a new *Pitta,* by Mr. Elliot (*Pitta leucoptera*), from Ceylon (?). We doubt Ceylon being the true habitat of this *Pitta,* which was obtained from M. Parzudaki of Paris, and we are almost inclined to doubt the "white wings" being anything more than a character of immaturity.

---

* See 'Ibis,' 1861, p. 406.

(2.) Description of a new North-American Grouse, by Dr. Suckley—*Pediœcetes kennicottii*—a northern form of the Sharp-tailed Grouse (*P. phasianellus*), from Fort Rae and Voig Island in Arctic America near Great Slave Lake.

(3.) A monograph of the genus *Ægiothus,* by Mr. Coues (p. 373). Mr. Coues has worked diligently at the series of Redpolls in the collection of the Smithsonian Institution, "which consists of more than one hundred specimens from very various localities in America, Europe, and Greenland, and comprises all the known species, except *Æ. rufescens* and *Æ. holbölli.*" Mr. Coues has also received examples of these birds for comparison from the Museum of Copenhagen; and from these materials makes out seven species of this group, namely:—

1. *Æ. rostratus,* sp. nov., of Greenland.
2. *Æ. fuscescens,* sp. nov., of Labrador.
3. *Æ. rufescens,* of Europe.
4. *Æ. linaria,* of Europe, Asia, and North America.
5. *Æ. holbölli,* of Northern and Western Europe.
6. *Æ. exilipes,* sp. nov., of North America.
7. *Æ. canescens,* of Greenland.

We should be sorry to hazard any opinion on these new species without having inspected the type-specimens; but every one who looks at Mr. Coues's paper must admit that his conclusions are not hastily arrived at, and that his descriptions of the birds of this group have been worked out with care and precision.

* * *

The 'Proceedings of the Californian Academy of Sciences'* for 1861 contain a paper by Dr. J. G. Cooper, wherein are described two new Californian birds—an Owl, allied to *Glaucidium gnoma* (of Baird's N. A. Birds = *Glaucidium californicum,* Sclater), which he proposes to call *Athene whitneyi,* and a Wood-warbler, of the genus *Helminthophaga* (*H. luciæ*). Both these birds were obtained in the Colorado Valley, where the latter is said to be

---

* Proceedings of the Californian Academy of Sciences, 1858–61, vol. ii. p. 124.

"common." A list of rare birds, specimens of which, as of these supposed new ones, were collected during the State Geological Survey in this locality, is added.

We have long lamented not being able to obtain any satisfactory information relative to the exact localities whence the bird-skins sent to Europe in such large numbers from Bogota are procured. An article by M. de Geoffrey, Secretary of the French Legation to the New-Granadian capital, lately published in the second volume of Dr. Uricochea's 'Contribuciones de Columbia á las Ciencias e á las Artes,' gives some interesting details concerning the Humming-birds of the district of Bogota *, and we trust that M. de Geoffrey will extend his researches into the other branches of the rich ornithology of that district.

The number of Humming-birds known in the environs of Bogota, M. de Geoffrey tells us, is 64. "Nous disons *les environs* de Bogota," continues M. de Geoffrey, "car ce n'est guère, à proprement parler, qu'un rayon d'une trentaine de lieues autour de cette capitale qui a été exploité avec quelque soin par les amateurs de cette branche de l'ornithologie, et sous leur direction par les Indiens, chasseurs d'oiseaux." The localities whence the Indians bring Humming-birds' skins are, as M. de Geoffrey goes on to inform us, principally Choachi, and the route of the Llanos as far as Villavicencio; then Anolaima, La Mesa, Viotá, Fuzagazugá, Muzo, and La Palma. M. de Geoffrey, after a general sketch of the altitudes at which the different generic forms of the Humming-birds are usually found, gives a list of the 64 species, arranged according to Prince Bonaparte's catalogue (Rev. Zool. 1854, p. 248), with details concerning the habits and resorts of each of them. This paper should be consulted by all those who are interested in Humming-birds, and we beg leave particularly to recommend the author to the notice of Mr. Gould.

---

* "Note sur les Trochilidées de la Nouvelle Granade." Contr. de Col. á l. Cienc. e Art, vol. ii. p. 3 (London, Trübner & Co.).

XXII.—*Letters, Extracts from Correspondence, Notices, &c.*

We have received the following letters:—

To the Editor of 'The Ibis.'

Norwich, February 22, 1862.

Sir,—In addition to the three specimens of the Shore-Lark (*Alauda alpestris*) taken at Brighton in November 1861, as described by Mr. J. D. Rowley in the last Number of 'The Ibis,' I am now able to record the capture of five others in Norfolk, between the first week in November and the 10th of January, 1862. The first was killed at Yarmouth on the 17th of November, the second at Sherringham on the 9th, and the third at Yarmouth on the 12th; and no others were apparently noticed on any part of our coast until the last pair were also procured at Sherringham, during the first week of the present year. Having been shot in different localities, I have been unable to ascertain how many of these birds were seen on each occasion, or whether they were the only ones observed at the time. Most probably there were others, which escaped destruction; and as these birds were performing a southward migration, it is by no means impossible that the five specimens seen by the Brighton bird-catcher, of which he caught two on the 15th of November, and one on the 16th, were the remnant of a flight, already thinned on their passage down our eastern coast.

Very severe gales had visited us for some days just previous to the appearance of the three November specimens, and several Little Auks were picked up at the same time in different parts of the country; but although some of these storm-driven sea-birds showed symptoms of privation, the Shore-Larks, both in flesh and plumage, were in high condition. It is somewhat singular that both those killed here and those netted at Brighton should all be male birds, as proved by dissection, though differing more or less in brightness of colouring. I was fortunate enough to examine the five Norfolk Shore-Larks as soon almost as they were sent up to this city for preservation. All exhibited a transition state between winter and summer plumage; but in those killed in the month of November the bands of black and yellow on the throat were very bright, and the horns plainly marked, more especially in the one from Sherringham, which had also a richer vinous tint on the wings; but in each the band over the crown of the head was but slightly traceable. Of the two killed at Sherringham on the 9th and 10th of January, one was evidently an older bird than the other, with a perfect black gorget and bright yellow tints on the throat and neck; the horns were well developed, and the cheeks black. The forehead, however, was more white than yellow, with a very indistinct black band mixed with yellow on the upper part of the head; the points of the shoulders vinous. The younger specimen had a smaller gorget, each black feather being tipped with yellow; the black on the cheeks also blended in the same manner. The horns slight, but quite distinguishable; no perceptible band across the head; forehead yellowish white; and several reddish longitudinal spots on the breast, immediately below the gorget.

At the time when these last two birds were obtained, the weather was very mild; but a severe frost had broken up about ten days before. Besides these recent specimens occurring in so singular a manner about the same time, I know of only three other examples of the Shore-Lark killed in this county—a young male in March 1830, an adult male at Yarmouth in November 1850, and a third male, also adult, at Holkham in December 1855. I have before alluded to the curious fact of all those procured being male birds, and it is worthy of notice in so accidental a visitant that, with one exception, all in the above list appeared during the winter months.

I am, Sir,
Yours, &c.,
H. Stevenson.

P.S. An adult male of the Little Owl (*Strix passerina*) was taken alive on board a fishing-smack off Yarmouth about the first week in February.

To the Editor of 'The Ibis.'

Australian Museum, Sydney,
Nov. 10th, 1861.

Sir,—A few days ago I purchased, from M. Jourde, Surgeon of the French whaling-ship 'Général d'Hautpoul,' a fine collection of birds from the Brampton shoals and adjacent islets, some of which appear to me as yet undescribed. I may be mistaken, but I will furnish you with a short description of these specimens.

1. ATTAGEN ARIEL? (Gould, B. Austr. vii. pl. 72.)

I do not know whether this is the species described by Mr. Gould. The female at least differs from the figure in Gould's work in having a band round the neck, and the breast white, without any wash of rufous. The air-bag is only indicated by a strip of bare skin hardly ½ inch wide and about 1½ inch long, whereas this bag is of very large size in the male bird. M. Jourde informs me that the birds were breeding in the month of July, he having succeeded in securing an egg and a young bird.

The egg, of which I beg to enclose a sketch, looks more like the egg of a raptorial bird than that of a sea-bird*. The young bird (of about three or four weeks) is white, with black wing-feathers. This bird is very plentiful about the Brampton shoals, and builds a nest of a few sticks, seaweed, &c., in the low bushes and small trees.

2. RALLUS PECTORALIS. (Gould, B. Austr. vi. pl. 76.)

There are some Rails on these low islands also which do not differ much from our common Rail (*Rallus pectoralis*). One of them, however, is much darker, and was pointed out to me by M. Jourde as the female.

3. TOTANUS GRISEOPYGIUS. (Gould, B. Austr. vi. pl. 38.)

These examples are identical, as far as my judgment goes, with the above-named Australian species.

4. NUMENIUS UROPYGIALIS. (Gould, B. Austr. vi. pl. 43.)

In these specimens, and in those preserved in the Australian Museum from this continent, I cannot detect any difference.

5. ANOÜS —— ?

This bird is very much like *A. melanogenys* of G. R. Gray, figured in the 'Genera of Birds,' but differs from that species in the white ring round the eye, which is partly interrupted. I enclose a sketch of this bird and of its egg. M. Jourde found it also breeding on the islands in the Brampton shoals.

---

* There is some mistake here, as the egg of the Frigate-bird is white. See Mr. G. C. Taylor's paper in 'Ibis,' 1859, p. 150.—ED.

6. CHARADRIUS —— ?

Apparently identical with our *Ch. xanthocheilus.* I will furnish you with a sketch of it by the next mail.

7. HIATICULA —— ?

Of this also I will send a sketch.

The following birds were captured at sea by M. Jourde:—

1. ANOÜS CINEREUS.

Lat. 37° 8′ 10″ S., long. 173° 18′ 50″ E., July 7, 1860. Eyes blackish blue.

2. ONYCHOPRION PANAYA?

Near the Brampton shoals.

3. XEMA —— ?

This bird, which is not figured in Gould's 'Birds of Australia,' was captured off the coast of New Zealand, lat. 46° 54′ S., long. 165° 58′ E. I enclose a sketch of it. Head, neck, tail, and under surface white; back and wing-coverts pale silvery grey, some of the feathers spotted with greyish brown, fringed with white at the end. Quills, the first two black, with a large spot of white near the tip of each, and minutely white-tipped; the remainder of the wing-feathers white, with black band and white tip, except the third feather, which is black, but also tipped with white.

4. PROCELLARIA HÆSITATA.

Lat. 32° 10′ S., long. 176° 25′ 42″ E., June 9, 1860. Eyes blackish brown.

5. PHAËTON PHŒNICURUS.

Found breeding in July on the Shoals. Young bird a week old of a uniform light-grey colour.

Among the birds obtained in New Zealand, I find a Stilt identical with our Australian *Himantopus leucocephalus.* M. Jourde attaches the following note to this specimen:—

"Cet oiseau a été tué dans l'intérieur de la Nouvelle Zélande, et sous une latitude de 44° à peu près. Celui qui l'a abattu, et qui est un des plus déterminés chasseurs du pays, a dit n'en avoir jamais vu un pareil à Nouvelle Zélande. Mai 1861."

The head is of a clear white. The specimens in the Museum are all more or less speckled with darker feathers; but this is all the difference I am able to detect.

The most interesting bird of the whole collection is a white variety of *Procellaria gigantea,* quite white, with only a few greyish feathers on the back and on the sides of the wings. I gave Dr. Bennett a description and measurement of this bird, and you will receive it very likely by this mail also.

I am, Sir, yours, &c.,
GERARD KREFFT.

With reference to the last-named species, Dr. Bennett writes as follows (Sydney, November 20th), enclosing Mr. Krefft's sketch :—

"This large Petrel was shot at sea, in lat. 33° 59′ S., long. 169° 36′ E., on the 22nd of October, 1860, as the label states which is attached to the specimen. The eyes are described as blue-black ; the mandibles of a light horn-colour ; the legs and feet black. The whole of the plumage was of a beautiful white colour, very slightly sprinkled with black over the throat and abdomen, but more so over the upper part of the head, neck, back, and scapulars. It was about the size of the Giant Petrel, of which no doubt it is an interesting variety, and was the only one seen by the whaler. Mr. Krefft, acting curator of the Australian Museum, kindly made me the drawing I send. The specimen, which is set up in the collection of the Australian Museum at Sydney, accords with the bird I mentioned in my 'Gatherings of a Naturalist,' pp. 76, 77, as named by sailors 'The Flying Leopard.' It is there regarded as a singular variety of one of the smaller species of Albatros."

The following extract is from a letter received from Mr. Blyth, dated Maulmein, November 3rd :—

"Tomorrow morning I start for the Youzalin (or *Yoou-za-leen*) district, in the interior of the province of Martaban, a region of frost and ice during the height of the cold weather, and of pine forests (*Pinus latteri,* if really distinct from *P. kassiana,* which I rather doubt). I travel in boats, poling about six days up the River Salwan and then two days up the Youzalin River, whence I have three marches over the hills. With the stream, the whole distance back can be accomplished in three days. I have collected nothing new here, at least among birds, though I have several good specimens. My principal haul has been, and is likely to be, among the fishes. The Youzalin district is, however, quite an untrodden region to the zoologist, and I may fairly expect to do something for ornithology. On the hill where I have been residing, *Crypsirhina varians* is quite common, also *Lanius hypoleucus*, and other species little known to European collections. *Hirundo rustica* has appeared in considerable numbers within these few days; and I have also observed a Cypseline bird with the flight and appearance of *Cypselus apus*—doubtless *C. vittatus*. The latter was always far out of shot. But animal life here is extraordinarily rare (fishes excepted) even in the most likely-looking hill-jungles. You may infer from the tone of this letter that my health is quite restored, and my strength too, pretty well, insomuch that I can already stand a fair amount of hill-clambering."

Herr August v. Pelzeln, writing from Vienna (December 12), kindly informs us that the Imperial Collection in that city contains three examples of our *Accipiter pectoralis* ('Ibis,' 1861, p. 313, pl. x.). "All three are females, and were collected by Natterer, two at Ypanema and one at Borba in Northern Brazil." Natterer's MSS. contain the following notice concerning this species:—"Iris dirty gamboge-yellow; ring round the eye and feathered lores dark yellow, verging rather towards olive-green; the strongly marked orbital ridge yellowish olive-green, more green than the nearest part of the naked skin; cere and hinder part of the base of the bill dark greyish green, the bill further forwards, as far as in a line with the cere, bluish grey, the rest of it black; nostrils very large and round, and at the hinder edges furnished with a perceptible cartilage; tarsi and toes dirty gamboge-yellow; claws black."

Herr v. Pelzeln's communication is of great value, as furnishing us with the true *patria* of this bird, of which we were previously ignorant.

With reference to our surprise that *Podiceps auritus* should have been found breeding at the Lake of Tamieh in Faguin, Egypt, as expressed in our last Number ('Ibis,' 1862, p. 81), Mr. Gurney reminds us that this bird breeds in Algeria ('Ibis,' 1860, p. 159) and in Epirus (*ibid.* p. 349), and that "another confirmation of its being a southern species is the fact of its being an extremely rare species in this country, whilst its northern congener, *P. cornutus,* is one of our common English visitors."

By the latest tidings which have been received from Messrs. Salvin and Frederick Godman, their explorations in Central America seem to be progressing prosperously. They did not, however, get away from Dueñas until the middle of December. Previously to leaving, they made a successful ascent to the summit of the Volcan di Fuego, and Mr. Salvin was twice able to reach the peak from which the fire proceeds. The collections they have made seem far to surpass any formed previously by Mr. Salvin at Dueñas. Between 700 and 800 bird-skins, besides mammalia and reptiles, and about 1300 butterflies, with a considerable quantity of botanical specimens, are, we understand, already on their way home. Affairs in Guatemala are unfortunately in rather a critical position just at present, and our friends have had to abandon their projected journey through Costa Rica. However they were going shortly in quest of larger game—Pumas and Tapirs—into the mountains of Santa Cruz, and after that into Vera Paz for a raid to the northward.

We have not had many ornithological particulars from Messrs. Salvin and Godman of late; but it would appear that they had obtained several specimens of *Oreophasis derbianus* among other 'Turkeys,' while Quezals (*Pharomacrus mocinno*) were brought in almost every day, and *Gallinago wilsoni* seems to have occasionally afforded very good sport. On the Volcan di Fuego, at the time of Mr. Salvin's first ascent, only sixteen species of birds were observed, of which some, such as *Junco cinereus* and *Certhia mexicana,* are peculiar to such heights. On the second expedition Mr. Salvin met with one fresh *Mniotilta*. His last letter was dated "Guatemala, January 2nd, 1862."

The Mission sent by the Government of Mauritius to the new King of Madagascar, and of which Mr. Edward Newton was a member, returned safely to the former island about the middle of November last, having experienced a most hospitable reception from His Majesty, Radama II. In order to complete their journey before the rains set in, the Ambassadors were compelled to lose no time on the road, and hence not many facilities for collecting were available. However Mr. Newton and Dr. Roch, who was the medical gentleman attached to the deputation, seem to have collected between them specimens of about *sixty* species of birds, of which the former has already sent home examples of about *five-and-twenty*, and we hope in our next Number to give some further details respecting them.

Writing from Mauritius, February 3rd, 1862, Mr. E. Newton says :—

"The last mail brought me, from the Acting Civil Commissioner at Seychelles, three fully fledged young of the beautiful Pigeon, *Alectrœnas nitidissima*. Unfortunately one died the day after I got it, but the other two are alive and well. They are difficult birds to keep, as they will eat nothing that I can give them but berries and small fruit. Luckily I have at this time a sort of fruit in great profusion in my domain; but it will only last for a fortnight, and then I do not know what I shall do for them. The one that died I have skinned, but it is not a good specimen. The living birds are very funny in their habits, never going on to the ground unless they are obliged; and they show a wonderful capability in stretching to a great distance from their perch, sometimes with their heads nearly perpendicularly downwards, so as to pick a fruit off the floor of their cage without descending to it."

Mr. F. Plant has within the last few weeks taken his departure for Mauritius *en route* to Madagascar, where he intends passing some time in collecting objects of natural history. His agent in this country is Mr. S. Stevens, of 24 Bloomsbury Street, London, W.C.

THE IBIS.

No. XV. JULY 1862.

XXIII.—*Five Weeks in the Peninsula of Florida during the Spring of* 1861, *with Notes on the Birds observed there.* By GEORGE CAVENDISH TAYLOR, F.R.G.S., F.Z.S., &c. (Part II.)

[Concluded from p. 142.]

On the 6th of April I started at sunrise, with George Sheldon, in a small centre-board boat, to go to an island at the entrance of the Mosquito Lagoon, distant sixteen miles south of Smyrna, and reported to be a breeding-place for Pelicans. For some miles the channel is intricate and tortuous, among low marshy islands covered with mangroves, in which the only birds to be seen are White and Blue Herons and Pelicans. On the east bank is a large mound, consisting of sand, oyster and clam shells, which is supposed to have been thrown up by the Indians; part of it has been washed away, and it now forms a bluff, and is overgrown with vegetation. It is called "Turtle Mound." Sheldon has built a "turtle-house" there, as a station during the turtle-season, in the fall of the year. The animals are caught in long nets, and kept in "pens" or enclosures of stakes, until there is an opportunity of shipping them. Sheldon catches a good many and sells them at four and a half cents a pound to small vessels, which take them to Charleston and New York. In this river the turtles do not average over forty pounds each, but in Indian River they are much larger.

All day long there was a strong wind from the south-east. It took us six hours to get to the island, having to thrash to windward the whole way. The water was rough, and for an hour or more I was drenched with "spoondrift." These small slip-keel boats are very wet, but are handy craft in a narrow river. The island to which we went is less than two acres in extent, flat and sandy, and but little above the level of the water. It is covered with a coarse weed which stands about a foot in height, and a few mangroves grow about high-water mark. As soon as I step on shore I kill a pair of Willets (*Symphemia semipalmata*) at one shot, and immediately afterwards a pair of Long-billed Curlews, right and left. These are the only Curlews I see; but the Willets are more plentiful, and all in pairs. There is not the least sign of Pelicans' nests. A few of these birds are on the island where we land, and a hundred or so are on a sand-bank near by. This is strange. Last year, about this time, Dr. Bryant visited this island, in company with George Sheldon, and got plenty of eggs, according to the account of the latter. The island was half covered with their nests, and it has been a breeding-station for them for years past. The island was overflowed by the tide last summer, and probably they may have left it on this account. There are other islands near, but no birds are upon them; and they do not usually make their nests on the mainland, where they would be exposed to the depredations of foxes, 'coons, and other animals. It is certainly time for them to be breeding. On Indian River young Pelicans were hatched weeks ago. There are some White Pelicans about here, but I did not see any.

The water in the lagoon is shallow, never over 7 or 8 feet in depth. I do not visit the other islands. The wind is too high to go any further to windward. There is no appearance of birds upon them, and Pelicans are visible at a great distance. There being nothing to stay for, we hoist the sail and make the run home in three hours. Two or three times we run bump against Saw-fish. It feels as if the boat had run upon a sand-bank; but the splashing of the animal soon indicates what it is. These fish are from 12 to 14 feet long, including the saw. They bask near the surface of the water, and show good sport for a harpoon. When struck they go off at a great pace, towing the boat after them. I am told that when an Alligator is hooked or speared, and the line hauled in, he shows fight, and tries to climb into the boat.

Three miles from Smyrna there is a small mangrove-covered islet much frequented by *Ardeidæ.* George Sheldon said that they bred there, and that we should find some nests. We land and get up to our knees in mud, but without result. As yet I have seen no signs of birds breeding about Smyrna, except Eagles and Fish-Hawks. Further south the birds, no doubt, nest much earlier than they do up here.

Willets are plentiful about Smyrna. Two examples which I skinned are so entirely dissimilar in size and plumage as to appear to be of two distinct species. I took them to the Smithsonian Institution at Washington, but Professor Baird gave it as his opinion that they were merely varieties of the same species, caused by age. I adhere to my previously formed opinion for the following reasons, which I conceive to be conclusive, even setting aside the difference of size and plumage. Both varieties are common, either in parties or pairs. I never saw them intermixed, but always separate. The pair which I shot this morning were of the ordinary type of *Symphemia semipalmata,* as were all the others about the island. The larger variety was also plentiful on the river; but if the two happened to be feeding together on the mud-banks, they separated on rising *.

April 8.—Out in the morning for my last trip to Smyrna, and returned unsuccessful. I have certainly been unlucky here. In the first place, Sheldon has been so constantly in attendance in

---

* Mr. Taylor has shown me his specimens, and there are, I must say, considerable differences in the two birds. As far as I can tell without examination of a large series of specimens, I should be inclined to consider them distinct. The larger variety seems to have already been called by Cuvier *Totanus speculiferus* (Règn. An. ed. 2, i. p. 531; Pucheran, Rev. et Mag. de Zool. 1851, p. 369), and should therefore be termed *Symphemia speculifera.* The dimensions of the species, as compared with *S. semipalmata,* are as follows, in inches and decimal parts:—

	Long. tota.	Alæ.	Rostri à rictu.	Tarsi.
S. speculifera...	15	8·0	2·7	2·85
S. semipalmata	14	8·0	2·35	2·35

—Ed.

his capacity as pilot on the live-oak vessels, endeavouring to get them to sea, that I could not persuade him to go on a hunt anywhere for more than a few hours. The wind having been invariably east raises such a surf on the bar that some of these vessels have been waiting for weeks to get over, and may have to remain some time longer. His son George, whom I had intended to have engaged to take me down Indian River with his boat and tent, was away with the two Englishmen, H. and L., and only returned a few days ago to start off again today in search of a doctor for a sick man in the house, who afterwards died. The coloured man, Bill, a very good cook and camp servant, who was also away with H. and L., was engaged as soon as he returned to attend upon the sick man, or I should have taken him. So I could do nothing but potter about the house. It is now too late to go down Indian River, for there the birds have done breeding. Mosquitoes are vigorous, and the weather is very hot. Winter is the time for this locality; one can then combine shooting, fishing, and bird-collecting. Wild Ducks of various kinds, which have now gone north, are then plentiful. Drum and Sheepshead, two excellent fishes, may be caught in quantities, to say nothing of the superior sport of spearing Saw-fishes and Alligators.

I shall now try my luck further north, for there is nothing more to be done hereabouts. I must say that Sheldon's is a satisfactory place to stay at. There is a never-failing supply of fresh fish, oysters, turtle, venison, wild turkey, &c.; and the house is far more comfortable than many large hotels I have been at in both Europe and America of immense pretensions and charges to match. At Sheldon's I meet with the greatest civility, and the charges are exceedingly moderate. A very pleasant custom prevails here. On each side of the house is a small altar of stone; on one or the other, according to the direction of the wind, a camp-fire is built up every night at dark. The smoke keeps off mosquitoes and sand-flies, and the fire dispels the gloom and gives a cheerful aspect to the locality.

For further particulars respecting the birds of this locality, I must refer the reader to Dr. Bryant's notes on the Birds of East Florida, in the 'Proceedings of the Boston Society of Natural

History,' vol. vii. There is no better authority on the subject than Dr. Bryant. I give a few extracts from his letters to me:—

"The most interesting things to be looked for in the bird line in Florida are the eggs of the Scolopaceous Courlan, and a small Burrowing Owl found in the interior near Indian River. The former is abundant only, as far as my knowledge extends, on the St. John's and tributary waters between Lake George and Lake Monroe, particularly on Spring Garden Lake; and next to this at the Wekira, a small stream entering from the westward, some thirty miles from Lake Monroe. * * * Down Indian River you can procure plenty of Pelicans, white and brown; the *Ardea ludoviciana*; *Egretta candidissima*; *Herodiæ pealii, rufescens, virescens, gardeni, violacea*; *Ibis alba*; *Platalea ajaja*; a good many Ducks, if you do not arrive too late for them; *Tachypetes aquila*; *Carbo floridanus*, &c.; also *Cyanocitta floridana*, a *very rare* bird even in collections in this country. * * * There are some birds, common enough, the eggs of which I never succeeded in getting, such as the Ivory-billed Woodpecker, which would be a most important acquisition to science, and a most ornamental and curious egg, *never likely to be common*, and growing rarer every year as the bird does. * * * The great heronry is on Indian River. Though the difference of latitude is small, there is a great difference in the time that the same species of bird deposits its eggs at Smyrna and at Indian River. The true tropical fauna seems to commence at Cape Canaveral, south of which they seldom or never have frost. The more tropical birds, and the greater part of the Herons, breed by the middle of March."

I may as well mention that I could hear nothing of the Burrowing Owl: no one with whom I spoke appeared to know the bird.

April 9.—I start early to return to Enterprise; I see nothing on the way except a few Sandhill Cranes, and some very fine full-plumaged White-headed Eagles, with a number of Black Vultures assembled round the carcase of a calf. The road passes close to Lake Ashby. While resting the horses, I walk down to the lake, and see several Alligators swimming like dogs a few yards from the shore. I had some idea of remaining for a week at Enterprise; but when I reach the hotel, I find that a county court is being held, which will last some days, and the hotel and settlement, such as it is, being crowded with "crackers" and farmers, I decide upon continuing my journey, and accordingly go on board the 'Darlington,' which is to start next morning at daylight. As soon as it gets dusk, I hear the Chuck-Will's-Widow calling loudly. This bird is not found in this latitude during winter, and has not long arrived.

April 10.—Soon after the steamer has left Lake Monroe and has arrived in the narrow river, we see a flock of Turkeys on the right bank, consisting of a "gobbler" and a few hens. Captain Brock and several others have their rifles ready, and blaze away at them, unfortunately wounding the "gobbler." This I consider shameful destruction, and unsportsmanlike in the extreme. Brock said he would stop the boat for a Deer, and points out places where he has killed them. The day being rather cold, with a strong breeze, is unfavourable for Alligators, and there are not so many as usual to be seen basking on the banks. As there are plenty of rifles ready to fire at every one that shows, some three or four are killed. The rifles used are the small American pea-rifles of a calibre from 80 to 100, and I am astonished to see how effective they are when loaded with a conical ball. An Alligator badly wounded, but not killed at once, makes a tremendous splashing in the water.

Just before entering Lake George, two "gunners" (American term for shooters) fire at an Alligator, fully fourteen feet long, which is sleeping on the bank quite clear of the water. The shots tell with good effect. The beast scrambles in, then turns on his back, splashing and kicking with his legs in the air, and showing his white belly. Another well-placed shot would have killed him, but, as it is, he recovers and dives. What becomes of him I do not know, for the steamer soon leaves him in the distance. One of the gunners shoots an unfortunate Fish-Hawk while bearing a fish to its nest. It drops the fish, falls in the woods, and perishes uselessly. These shooters were on the watch to fire at anything that showed itself within distance. On several parts of the river I saw (both going and returning) a good number—some thirty or forty—of the Scolopaceous Courlan, which they call here "Limkins." They were wild, having doubtless been frequently shot at, and would not let the steamer approach them, but rose at a distance and flew into the thick reeds which fringe the edge of the water. Anhingas were very plentiful not far from Pilatka. I was pleased to see eight Swallow-tailed Kites (four of them together) soaring over the woods which cover the banks of the river. Luckily they did not come near enough for a shot from the gunners. They are beautiful birds, and most graceful in their movements.

On board the 'Darlington' were three gentlemen from Savannah, who had arrived at Smyrna a week before I did. They went down Indian River, and crossed overland to Lake Washington, near the head of the St. John's, a distance of six miles, which they walked, taking their things over in an ox-cart. They came down the St. John's River to Enterprise in a small boat, a reputed distance of two hundred miles. They had had good sport fishing, but had met with very little game and not many birds, and no Parroquets. They had seen a few "Limkins," and shot one; they had also shot a Black-necked Stilt.

At most of the landings where the steamer stops, venison is put on board to be conveyed north. Of course the facilities of communication greatly contribute towards promoting the destruction of the Deer, especially as these animals are shot all the year round. I have already mentioned the long pendent moss which hangs from nearly all the trees in the southern States of America*. When green, it is eaten by cattle. It is also used for stuffing mattresses and cushions. For this purpose it is soaked in water until the green bark or rind is rotted off, when the inner part remains black and crisp, and in outward appearance somewhat resembles curled horsehair. It is an air-plant, and in this climate will live if hung up anywhere. Wherever it grows in great abundance the spot is sure to be unhealthy. The trees in the pine-barrens are free from it, but in the swampy spots it grows luxuriantly. I have compared this moss with some of the Spanish moss which I brought from Jamaica, and find it entirely different: it is much coarser and longer.

---

* This is not really a moss, but a flowering plant of the natural order *Bromeliaceæ*—the *Tillandsia usneoides*.—Ed.

The 'Darlington' remains all night at Pilatka, and I stay on board. The night is very hot and close, and mosquitoes are very troublesome. We are also much inconvenienced by what they call here "blind mosquitoes," which appear to be flying ants. They come in clouds, sometimes in such quantities as to put out a fire. They are attracted by a light, and the steamer is full of them. They do not bite, but from their numbers are very annoying.

Next morning the 'Darlington' proceeded on her voyage. I landed at my old quarters at Orange-Mills, where I remained for ten days. For several days following there was a heavy thunderstorm every afternoon, which saturated the ground, and made the bushes so wet as to restrict my bird-collecting considerably.

One day I went with a party to fish in "Deep Creek," a tributary of the St. John's. It is narrow, clothed with forest to the water's edge, and not much frequented. As we did not arrive until ten o'clock, the sun was so hot as to make walking rather unpleasant work. I spent some time in a dense swamp full of large cypress-trees, apparently a very favourable locality for Ivory-billed and Pileated Woodpeckers; but I saw nothing but some Grey Squirrels, which are common enough everywhere. On the trees overhanging the stream were a few Anhingas. I saw a few Alligators, but they are shy hereabouts, being constantly persecuted. On leaving the swamp I observed a pair of Swallow-tailed Kites soaring aloft, but the chance of their coming within shot was small indeed; so, being somewhat tired, I took to the boat to see if the fishing would bring more luck, always keeping my gun ready for a shot. While thus engaged, I saw the Swallow-tailed Kites coming nearer, and gliding just clear of the tops of the trees, where, no doubt, they find a good supply of lizards, tree-frogs, and insects. At last one came within shot, and I killed it. On opening it the next day, I found the crop full of half-digested lizards and small snakes. Whenever I have seen these birds, they have always been in pairs, gliding over the tree-tops, near to the water. I have no doubt that they breed in this part of Florida. A resident with a moderate amount of energy would have no great difficulty in finding their nests; but the arduous task would be to get at them when found. They probably breed in swamps, at or near the top of a lofty cypress with a bole far too thick for a man to encircle, perfectly smooth, and without a branch for fifty or sixty feet from the ground. It would then rest with you either to devise some means to get up yourself, or (what would be far more difficult) to induce a negro to undertake this task, and to teach him how to set about it. The probability is, that the young birds would be hatched and flown before you had succeeded in reaching the nest.

The fishing was tolerably successful. The baits used were living or dead fishes. A good number of various species of Perch were caught—blue, red-bellied, and black. The latter attain a weight of four or five pounds, and are called "Trout." All were beautiful fish and good for the "pan," as the term in use here expresses it. We lit a camp-fire and cooked them, and they proved excellent. The waters of Florida abound with fish, and the varieties seem to be endless. The Cat-fishes (*Pimelodes*) are generally dispersed over the North American continent, both in fresh and salt water. I recollect catching them on the Pacific coast of Central America; and they abound in Florida, and are often of a large size. While the 'Darlington' was lying at Pilatka, I saw a man hook one which must have weighed 20 pounds. It was like a rock on the line. He hauled it up to the surface, but lost it in trying to lift it out. These fishes are in little estimation for the "pan," though the negroes eat them. The negroes, however, are not particular, and no doubt a Cat-fish is as good as a "'possum."

It came on to rain heavily as soon as we had finished our meal The storm lasted nearly two hours. We then got home just in time to escape another storm, which set in about sunset and lasted well into the night. The next day I obtained a specimen of Bonaparte's Gull, which I shot while it was running along the shore of the river. About the 16th of April Night-Hawks appeared; they were plentiful and easily obtained. They fly about like swallows an hour or two before sunset. I often saw twenty or thirty together. In my notes on the Birds of Honduras ('Ibis,' vol. ii. p. 114), under the head of "*Nyctidromus*," I mention seeing some hundreds of birds hunting moths in the evening.

From subsequent experience I feel certain that the birds seen on that occasion were not *Nyctidromi,* but either Night-Hawks or some birds very similar to them. The Night-Hawks are common even as far north as Quebec, where I observed them towards the end of September: they are commonly known by the name of "Bull-Bats." Red-bellied and Red-cockaded Woodpeckers were common about Orange-Mills, and easily obtained. I searched closely for Florida Jays, but never met with them. I showed the bird to several persons, and they were not acquainted with it, nor did they even recollect having seen one before.

I made an excursion for some miles into the "piny woods" east of the St. John's River, but found very little to reward me. I killed a fine specimen of the Blue Heron, and a Black Squirrel, a male—the largest I ever saw, fully as large as a half-grown cat. Although the prevailing colour is black, it is also distinctly marked with red and grey. I saw a single flock of ten or a dozen Parroquets, and next day went again to the same locality in search of them, but without success. I have never met with these birds twice in the same place, and it seems to be mere chance to meet with them at all. I was told by an old resident in Florida, who had served during the Indian war, that formerly they were plentiful about the Indian villages. But that is all changed now. All the Indians, except some twenty or thirty, have been removed from Florida, and the Parroquets have considerably diminished. The Chuck-Will's-Widow was tolerably common at Orange-Mills; but the difficulty of obtaining this bird may be known by the fact, that I was out fourteen or fifteen evenings before I obtained one, and then had to shoot when the bird was so close that the plumage was much damaged by the shot. An evening or two later I killed two, one of which I was unable to find. The other fell among a thick brake of saw-palmettos, and I could not find it until next morning. The Chuck-Will's-Widows fly low, and sit on rails, stumps of trees, and other low places, which increases the difficulty of seeing them in the dusk of the evening. If they roost on the ground in the daytime, they might probably be hunted up with dogs. I saw no signs whatever of small birds nesting up to the time I left Orange-Mills.

By the 18th of April I had pretty well used up this locality, and was meditating a trip to Cedar Keys, on the Gulf of Mexico, which is easily accessible by the lately constructed railroad from Fernandina. There I hoped to have found fresh varieties of birds, or at least that some of those already seen would prove to be more plentiful. But the news of the capture of Fort Sumter delayed my departure; and when, three days later, I heard of the secession of Virginia, the burning of the navy-yard at Norfolk, and the capture of the armoury at Harper's Ferry, with the probable interruption of the mails and means of communication, I thought it advisable to move northwards while I could. Accordingly I closed my ornithological campaign in Florida, and returned to Baltimore the same way that I came.

In three months I could do great things in Florida, both in birds and eggs. Five weeks is too short a time, especially when one goes as a stranger and has to learn all the localities. My experience teaches me (and Florida affords no exception) that it is necessary to go to a place once to know how to go to it a second time; for the reports and information of others are but of secondary utility, as no two persons' experience is alike. I should like to be in Florida from December until the middle of May, before which one should not leave. The climate is then delicious and perfectly healthy, and during that time there is nothing to be done in the northern States.

XXIV.—*Further note on the Eggs of* Vultur auricularis *and* Aquila audax. By J. H. Gurney.

The second volume of 'The Ibis' contains, in page 171, a notice of the eggs laid in the years 1859 and 1860 by a Vulture in my collection, of the great South African species, *Vultur auricularis* of Daudin. This bird has since laid two more eggs, being in all four eggs in four successive years, and at the following dates:—15th of February, 1859; 23rd of February, 1860; 20th of February, 1861; and 26th of February, 1862.

The character and colouring of all these eggs are similar, the ground being white, and the markings rufous, varying in extent and in intensity, but chiefly aggregated at the obtuse end of the egg.

Of the four eggs, the most rufous is that laid in 1860; there is less rufous colouring in the egg laid in 1861; still less in the first egg, laid in 1859; and least of all in the last egg, laid during the present year, which is, in fact, nearly white all over.

In the notice in the second volume of 'The Ibis' above referred to, I also mentioned an egg laid on the 28th of February, 1860, by a Wedge-tailed Eagle (*Aquila audax*, Latham).

This Eagle, which is still in my possession, did not lay in 1861, but produced a second egg on the 14th of March of the present year, resembling her first egg (laid in 1860), with the exception of being much less spotted with rufous, of which colour the second egg shows hardly any trace.

XXV.—*Observations sur le Genre* Circaëtus; *et Description d'une nouvelle Espèce.* Par MM. J. Verreaux et O. Des Murs.

(Pl. VII.)

Nous profitons de la bonne hospitalité que veut bien nous continuer le savant Directeur de ce Recueil, pour y présenter une faible partie de nos travaux sur les Oiseaux de Proie.

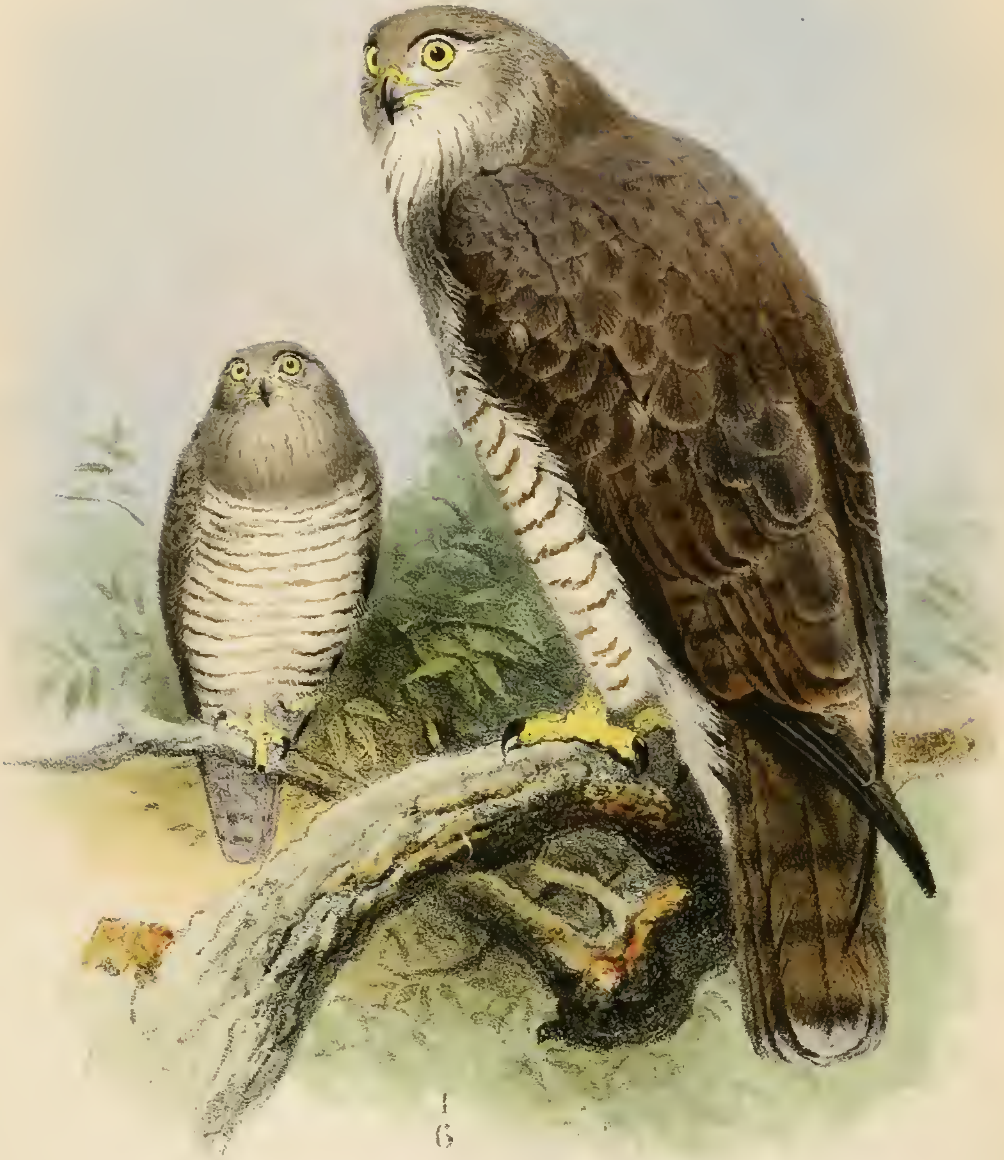
On fait maintenant, car on a semblé l'ignorer pendant longtemps, et l'on apprend tous les jours, quelles difficultés présente l'étude de ces oiseaux, qui sont, de toute la série, ceux chez lesquels le métachromatisme met le plus de temps à se produire et à se parfaire. Il n'y a donc rien d'étonnant à ce que leur synonymie, comme leur spécification, aurait longtemps été remplie d'erreurs.

Nous avions, un moment, eu l'intention de faire une étude sur toutes les espèces du genre *Circaëtus*. Mais après l'excellent article si complet publié à leur sujet par M. von Heuglin, on peut dire que la lumière est faite: aussi n'y ajouterons-nous que fort peu de chose.

Nous nous y déterminons avec d'autant plus de confiance, que nous nous appuyerons par fois sur les observations si exactes d'un des plus compétents collaborateurs de l'*Ibis*, et le plus riche des collecteurs d'oiseaux de proie, l'honorable M. H. Gurney.

1. Circaëtus gallicus, Gm.

Cette espèce, d'Europe, est aussi du Nord de l'Afrique, et



J. Wolf, et J. Jury, lith.

M & N. Hanhart, Imp^t

CIRCAETUS BEAUDOUINI

même de l'Afrique Orientale. Voici les localités, fréquentées par cette espèce, que nous retrouvons dans nos notes: l'Algérie, la Nubie, la Syrie, les Indes Orientales.

Quoique le Dr. Hartlaub la signale dans son ouvrage sur les Oiseaux de l'Afrique Occidentale, nous doutons encore que ce soit bien cette espèce. Avec d'autant plus de raison que l'un de nous a eu en sa possession, au Cap de Bonne Espérance, de jeunes *thoracicus* qui avaient changé de plumage sous ses yeux; et qui, cependant, tout en ressemblant au *brachydactylus,* finissaient, deux années plus tard, par prendre le plumage brun-noirâtre du vrai *thoracicus,* avec la région inférieure, à partir de la poitrine, d'un blanc pur. Il est donc probable que le savant ornithologiste se trompe à ce sujet: c'est ce dont nous a convaincus, en 1861, l'étude de deux sujets venant de Bissao, qui avaient, à s'y méprendre, le plumage de l'espèce d'Europe.

2. Circaëtus thoracicus, Cuvier, qui se trouve au Cap de Bonne Espérance, en Abyssinie, en Nubie, en Sénégal, et à Bissao.

Nous avons reçu en effet une jeune femelle de cette dernière localité, dont le plumage était d'un brun-fuligineux, sauf les bandes des ailes et de la queue, et qui ressemblait en tout point à un autre jeune reçu, par M. Gurney, de l'Afrique Méridionale (côte de Natal).

Il est évident, pour nous, et nous persistons dans cette opinion, malgré le doute émis par M. von Heuglin, que le jeune décrit et figuré par Vieillot dans sa 'Galerie,' sous le nom de *C. cinereus,* n'est que le très-jeune de l'année. Le jeune, au sortir du nid, est en effet *brun-enfumé;* il prend une teinte *ardoisée* à la seconde mue, ou plutôt à la seconde phase de son métachromatisme; cette teinte pâlit à la troisième; et, à la quatrième, il a le plumage du *C. brachydactylus,* qu'il ne change guère qu'à la sixième: c'est-à-dire, que les raies brunes du ventre, ou mieux, des parties inférieures, diminuent de largeur à mesure que l'oiseau avance en âge; ce n'est enfin qu'à la septième année qu'il revêt la robe de l'adulte parfait.

3. Circaëtus zonurus, Prince P. de Vurtemberg.

Disons d'abord, à l'occasion de cette espèce, qu'elle ne fait qu'une seule et même avec le *C. melanotis,* J. Verreaux, et avec le *C. cinerascens,* Baron Müller.

Le dessin figuré par ce dernier comme la description qu'il en donne, nous font partager l'opinion de M. von Heuglin, que le *Circaëtus cinerascens* n'est que le même oiseau plus jeune que le *Circaëtus zonurus* du Prince P. de Vurtemberg, qui, à son tour, est le même, dans un âge moins avancé, que le *Circaëtus melanotis,* J. Verreaux, qui serait alors l'oiseau *parfaitement adulte.* C'est-à-dire, que celui de M. Müller est l'oiseau de l'année, se rapportant au plumage de celui que nous avons sous les yeux, venant de Bissao, mais une femelle avec les dimensions sans aucun doute exagérées sur une peau allongée, puisqu'il lui donne 80 centimètres de longueur totale !

Celui du Prince de Vurtemberg serait dans sa troisième année, ayant un plumage plus brun et plus clair, laissant voir sur la partie inférieure les bandes qui se peuvent observer dans le dessin de l'*Ibis,* mais qui, dans la quatrième année, diminuent sensiblement de largeur, pour enfin disparaître dans l'état *adulte*; le brun de la tête et du cou disparaissent également pour faire place au blanc ou blanchâtre qui colore ces parties, ne laissant que la région parotique brun-noir; enfin la partie supérieure devient plus brune. Mais un fait caractéristique, pour nous, c'est que la large bande blanche, qui existe dans tous les âges, ne varie que peu suivant toutes les périodes.

A l'appui de ce qui précède, nous ajouterons la description d'un jeune mâle du *Circaëtus* décrit, sous le nom de *C. melanotis,* dans l'ouvrage de notre savant ornithologiste le Dr. Hartlaub sur les Oiseaux de la côte Occidentale d'Afrique.

Ce jeune, qui venait de Bissao, est brun en-dessus, mélangé de noir-brun çà et là sur le dos et les ailes; cou et tout le reste blanchâtre-sale avec des flammèches brunes sur la tête et le dessus du cou, lavé de brun-sale sur la poitrine et le ventre; cuisses brunes; le noir des oreilles remplacé par du gris-brun qui s'étend le long du cou; rémiges brun-noir; queue de même couleur avec un très-large ruban blanchâtre lavé de gris-brun; iris gris-marron; tarses noir-brun avec les ongles plus foncés. Couvertures sur-caudales terminées de blanc ainsi que les rémiges secondaires, et même quelques-unes des plus longues tectrices supérieures des ailes; toutes les rémiges grises, barrées transversalement de noir-ardoisé, et en partie blanches à l'intérieur; mais les bandes plus noires en-dedans, et l'extrémité des primaires de cette dernière couleur; toutes les couvertures inférieures d'un blanc pur, ne laissant voir que quelques traces de taches. Il est facile de voir sur le bas-ventre des taches et des raies qui sont surtout mieux marquées sur les cuisses où le blanc domine; couvertures sous-caudales blanchâtres, avec des raies brun-cendré plus ou moins bien marquées; une espèce de sourcil noir étroit prenant naissance de chaque côté du front, s'étend en diminuant jusque sur les oreilles; les cils entourants l'œil, du même noir; cire et base du bec jaune d'ocre clair dans la peau, puis plombé et noir sur la pointe; tarses jaunâtres avec les ongles noirs. Quant aux écailles, elles sont au nombre de trois, et, sur une seule patte, il est facile de voir, à la dernière écaille, la bifurcation signalée par le Baron Müller chez son *C. cinerascens*. La troisième rémige est la plus longue, mais la quatrième n'a guère que 2 lignes de moins: cela varie considérablement d'individu à individu; car nous en avons vus dont la quatrième est la plus longue d'un côté, et la troisième de l'autre, observation qui pourrait peut-être fair échec au système de Isid. Geoffroy St.-Hilaire, basé sur la disposition des plumes des ailes dans les Oiseaux de Proie.

4. CIRCAËTUS FASCIOLATUS, G. R. Gray.

Nous avouons que pendant longtemps, et jusqu'à la publication de la figure qui en a été faite cette année dans l'*Ibis*, pour la première fois, nous avions regardé cette espèce comme un âge du *C. thoracicus*, et que c'est dans ce sens que nous l'avions signalée au Prince Ch. Bonaparte, qui l'a en effet fait entrer dans la synonymie de ce dernier. D'après cette figure et les observations de M. Gurney, le doute n'est plus possible; nous sommes donc revenus de notre erreur, et regardons aujourd'hui cet oiseau comme bien distinct de tous les autres. Sa taille tient le milieu entre celle du *C. zonurus* et celle de l'espèce nouvelle que nous annonçons. Il est au surplus facile à distinguer par le nombre des bandes de la queue, qui ne varie pas dans le *C. zonurus*.

Il paraît, d'après M. Gurney, que cette espèce n'a été rencontrée que dans l'Afrique Méridionale (Natal).

Quant à ce que dit cet habile observateur (*Ibis*, 1861, p. 130) au sujet de deux exemplaires reçus de Bissao, et venant des voyageurs de la maison Ed. Verreaux, qu'il regarde comme étant des *C. brachydactyli*, nous croyons qu'il est dans l'erreur, et que ces sont bien certainement des jeunes du *C. thoracicus*.

En definitive, le *C. fasciolatus* de M. G. R. Gray serait la quatrième bonne espèce.

Vient enfin notre espèce dont voici la diagnose et la description :—

5. CIRCAËTUS BEAUDOUINI. Pl. VII.

Major : supra ex brunneo dilute violaceus, cauda tantum iv. fasciis notata: subtus albus; colli thoracisque singulis plumis brunneo lineatis; abdomine lateribusque brunneo fasciatis; crisso et femoribus pure candidis; rostri basi flavescente, apice nigro; cera et pedibus albescentibus; unguibus nigris; iride aureo.

Mâle.—D'un brun-clair, à teintes violacées sur les parties supérieures; gorge, devant du cou et thorax blancs, chaque plume portant une ligne brune, perpendiculaire et étroite au centre, plus large vers le bas, dont les côtés sont bruns; ventre et flancs d'un blanc pur rayé transversalement de brun; bas-ventre, cuisses et couvertures sous-caudales, ainsi que les sous-alaires d'un blanc pur, s'étendant sur une grande partie des barbes internes des rémiges, dont l'extrémité est d'un noir-brun; toutes les secondaires traversées de quatre bandes de cette dernière couleur dans toute leur largeur, mais celles-ci terminées de brun plus-clair, puis de blanc; queue du même brun que le dos, traversée de quatre bandes brun-noirâtre, et bordée de blanc; dessous blanchâtre avec les bandes moins visibles. Bec jaunâtre à sa base et noirâtre dans le reste, beaucoup plus faible que chez la femelle; tarses blanchâtres, ongles noirs; cire d'un blanc-jaunâtre; iris jaune-d'or. Le doigt du milieu le plus long.

Longueur totale	66	cent.	
„ de l'aile fermée	50	„	
„ de la queue	28	„	
„ du bec, en suivant sa courbure	04	„	03 mill.
„ du tarse	09	„	

La *femelle*, qui se trouvait dans le même envoi, avait exactement le même plumage, mais elle mesurait 74 centimètres. Deux autres, plus jeunes, étaient de même grandeur ; mais elles différaient par le brun qui couvrait le cou et le thorax, ainsi que par les raies du ventre qui étaient plus nombreuses, s'étendant un peu sur les cuisses, le bas-ventre, et même sur les couvertures sous-caudales et sous-alaires.

Longueur totale de la peau	73	cent.	
,, de l'aile fermée	61	,,	
,, de la queue	31	,,	
,, du bec, à partir de la commissure	06	,,	
,, id. à partir de la cire, en suivant la courbure	04	,,	01 mill.

Sur ces quatre sujets, trois font aujourd'hui partie de la riche collection déposée dans le musée de Norwich par notre savant collègue M. J. H. Gurney, l'un de nos plus zélés promoteurs de la science, et auquel on doit le magnifique dessin qui se trouve dans ce Recueil. Tous quatre provenaient de l'Afrique Occidentale, et de la partie connue sous le nom de Bissao, où ils avaient été recueillis par l'un des voyageurs de la maison Ed. Verreaux.

D'après les notes envoyées par M. Beaudouin, cette espèce ne serait que de passage dans cette localité, et s'y nourrirait principalement de grenouilles, de lézards, et même de petits poissons ; elle fréquenterait plus spécialement les marais ; mais, à défaut de cette nourriture, elle chercherait, dans les plaines, les mammifères de petite taille, surtout les rongeurs ; elle ne se rencontre que par paires, et se retire le soir dans les grands bois pour y passer la nuit. Jusqu'ici M. Beaudouin n'en a pas observé le nid : ce qui viendrait en quelque sorte confirmer ce que nous marquait, il y a quelque temps, M. Gurney, que la même espèce se retrouve en Abyssinie, puisqu'il en possède un exemplaire identiquement le même, depuis déjà plusieurs années, et qui, comme ceux-ci, est également dans le même musée*. Il est donc probable que c'est là sa mère-patrie, et que c'est là que niche l'espèce.

Ainsi que l'annonce la figure, il n'est guère possible de con-

---

* Mr. J. H. Gurney informs us that this specimen, which is marked as from Nubia, was received from M. Verreaux several years ago.—Ed.

fondre cette belle et nouvelle espèce avec aucune autre connue. Cependant, sauf la taille, elle se rapproche plus du *Circaëtus fasciolatus* de M. G. R. Gray.

Nous saisissons cette occasion pour remercier M. Gurney de la libéralité et du désintéressement dont il fait preuve, en nous permettant de décrire ce remarquable oiseau. Et nous espérons que le nom, que nous lui imposons en l'honneur du voyageur qui l'a découvert, sera respecté par les amis de la science.

M. Beaudouin, de son côté, trouvera dans cet hommage la preuve que nous savons apprécier à leur valeur les sacrifices qu'il a déjà faits dans l'intérêt de la science. On sera même surpris de sa persévérance si nous apprenons à nos lecteurs que depuis son long séjour dans ces mortelles contrées, et pour la troisième fois, il est resté toujours seul des Européens qui l'y ont accompagné, et qui tous ont succombé à la peine : ce qui prouve combien il lui a fallu de courage et de force de caractère pour surmonter de semblables obstacles.

Dans l'ordre de la taille nous ne connaissons pas d'espèce plus grande que le *C. thoracicus,* si ce n'est de *C. gallicus* ou *brachydactylus,* qui lui est presque égal; vient ensuite notre *C. beaudouini,* puis le *C. fasciolatus,* et enfin le *C. zonurus,* qui paraît le plus petit de tous.

XXVI.—*A List of the Birds of New Zealand and the adjacent Islands.*

[This list has been drawn up by Mr. G. R. Gray from the Synopsis of the Birds of New Zealand (embracing Auckland, Campbell and Chatham Islands), given by him in the 'Zoology' of the Voyage of H.M.SS. Erebus and Terror, with which he has incorporated the additional species recorded by modern authors since the publication of that work. At the same time, the birds found on the neighbouring islands, viz. Norfolk, Phillip, Middleton's, Lord Howe's, Macaulay's, and Nepean Islands, &c., have been added, to complete the Avifauna of this portion of the Southern Hemisphere.—Ed.]

FALCONIDÆ.

1. HIERACIDEA NOVÆ ZEALANDIÆ, Kaup, Isis, 1847, p. 80.
New Zealand Falcon, Lath. Gen. Syn. i. p. 57.

Falco novæ seelandiæ, Gmel. S. N. i. p. 268.
Falco novæ zealandiæ, Lath.
Falco harpe, Forst. Descr. An. p. 68, et Icon. ined. 36, 37, 38; Ellman, Zool. 1861, p. 7464.
Falco australis, Hombr. & Jacq. Ann. Sci. Nat. 1841, p. 312; Voy. au Pôle Sud, Ois. t. 1. f. 1.
Hypotriorchis novæ zealandiæ, G. R. Gr. Gen. B. i. p. 20.
'Kahu,' 'Kauaua,' 'Kari-area,' 'Kahu papango,' of the natives.
Hab. Queen Charlotte's Sound; Dusky Bay; Otago; North and South Islands, N. Z.; Auckland Island.

2. HIERACIDEA BRUNNEA.
Falco brunnea, Gould, P. Z. S. 1837, p. 139; Ellman, Zool. 1861, p. 7464.
Falco ferox, Peale, Expl. Exped. (1848) viii. p. 67.
Falco novæ zealandiæ, p., G. R. Gr.
Hypotriorchis novæ zealandiæ, p., G. R. Gr.
'Karearea,' 'Kaiaia,' 'Karewarewa'? of the natives.
Hab. New Zealand.*

3. ACCIPITER APPROXIMANS, G. R. Gr. List of Accip. B. M. 1848, p. 74.
Astur approximans, Vig. & Horsf. Linn. Tr. xv. p. 181; v. Pelz. Sitz. Acad. d. Wiss. Wien, xli. p. 320.
Astur radiatus, Cuv. Règ. An. 1829, p. 332.
Astur fasciatus, Vig. & Horsf.
Nisus (Urospiza) radiatus, Kaup, Mus. Senckenb. 1845, p. 259.
Nisus (Urospiza) approximans, Kaup, Isis, 1847, p. 182.
Hab. Norfolk Island (*v. Pelz.*).

4. CIRCUS GOULDII, Pr. B. Consp. Av. p. 34.
Circus assimilis, (Jard. & Selb.) G. R. Gr. Voy. Ereb. & Terr. Birds, p. 2.
Hab. Waikouaiti; Otago; South Island, N. Z.

---

* What is *Falco aurioculus,* Ellman, Zool. 1861, p. 7464?
Beneath pure cream-coloured when adult, spotted with rufous when young; irides bright yellow.
'Kahu,' 'Kahu korakorako,' of the natives.
Hab. New Zealand.

STRIGIDÆ.

5. ATHENE NOVÆ ZEALANDIÆ, G. R. Gr. List of Accip. B. M. i. p. 52.
New Zealand Owl, Lath. Gen. Syn. Suppl. p. 48.
Strix novæ seelandiæ, Gmel. S. N. i. p. 296.
Strix fulva, Lath. Ind. Orn. p. 65; Forst. Descr. An. p. 71, et Icon. ined. 39; Ellman, Zool. 1861, p. 7464.
Noctua zealandica, Quoy & Gaim. Voy. l'Astrol. Zool. i. p. 168, Ois. t. 2. f. 1.
Athene novæ seelandiæ, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 2.
Noctua venatica, Peale, Expl. Exped. 1848, viii. p. 75.
Ninox (*Spiloglaux*) *novæ zealandiæ*, Kaup.
Ieraglaux (*Spiloglaux*) *novæ zealandiæ*, Kaup.
'Herooroo,' 'Eou hou,' 'Kou kou,' 'Kao kao,' 'Ruru ruru,' of the natives.
Hab. Queen Charlotte's Sound; Tasman's Bay, N. Z.

6. ATHENE (SCELOGLAUX) ALBIFACIES, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 2.
Ninox (*Sceloglaux*) *albifacies*, Kaup.
Ieraglaux (*Sceloglaux*) *albifacies*, Kaup.
'Wekau' of the natives.
Hab. Waikouaiti, South Island, N. Z.*

ALCEDINIDÆ.

7. HALCYON SANCTUS, Vig. & Horsf. Linn. Tr. xv. p. 206.
Halcyon sacra, Steph. Gen. Zool. xiii. p. 98; Phill. Bot. Bay, pl. p. 156; Gould, B. of Austr. ii. pl. 21.
Dingy-plumed Kingfisher, '*The Norfolker*,' Downing.
Hab. Norfolk Island.
Very like, but rather larger than Australian specimens.

8. HALCYON VAGANS, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 2. pl. 1; Ellman, Zool. 1861, p. 7467.

---

* What is *Strix parvissima*, Ellman, Zool. 1861, p. 7465?
Size of a Starling. Mr. Ellman did not obtain a specimen.
'Ruruwekau' of the natives.
Hab. New Zealand.
What is *Scops novæ zealandiæ*, Pr. B. Consp. Av. p. 47?
Hab. New Zealand (?). (Mus. Lugd.)

Sacred Kingfisher, Lath. Gen. Syn. ii. p. 612.
Alcedo sacra, Gmel. S. N. i. p. 453.
Alcedo cyanea, Forst. Descr. An. p. 76, et Icon. ined. 59.
Alcedo vagans, Less. Voy. Coqu. Zool. i. p. 694.
Halcyon sanctus, Vig. & Horsf. Linn. Tr. xv. p. 206 (?).
Todiramphus vagans, Pr. B. Ateneo Ital. 1854, p. .
Dacelo vagans, Peale, Expl. Exped. 1848, viii. p. 162.
'Ghotarre,' 'Kotoretaro,' 'Kotaritari,' 'Kotare-popo,' 'Kotare,' of the natives.
Hab. South Island; Bay of Islands; Dusky Bay, N. Z.*

UPUPIDÆ.

9. HETERALOCHA GOULDI, Cab. Mus. Hein. i. p. 218.
Neomorpha acutirostris et *N. crassirostris,* Gould, Syn. Austr. Birds, pt. i.
Neomorpha gouldii, G. R. Gr. List of Gen. of B. 1841, p. 15; Ellman, Zool. 1861, p. 7466.
'Ellia,' 'Huia,' of the natives.
Hab. Port Nicholson; Torirua range of mountains, N. Z.

MELIPHAGIDÆ.

10. PROSTHEMADERA NOVÆ SEELANDIÆ, G.R.Gr. List of Gen. of B. 1841, p. 20, et Voy. Ereb. & Terr. Birds, p. 3.
Poë Bee-eater, Lath. Gen. Syn. ii. p. 682.
Merops novæ seelandiæ, Gmel. S. N. i. p. 464.
Merops concinnata, Lath. Ind. Orn. i. p. 275.
Sturnus crispicollis, Daud. Elém. d'Ornith. p. 314.
Certhia concinnata, Forst. Descr. An. p. 78, et Icon. ined. 61.
Meliphaga concinnata, Temm. Anal. lxxxvii.
Philemon concinnatus, Vieill. Enc. Méth. p. 613.
Prosthemadera concinnata, G.R.Gr. List of Gen. of B.1840, p.3.
Meliphaga novæ zealandiæ, Ellman, Zool. 1861, p. 7466.
'Ròghee etooee,' 'Pòhe,' 'Poe,' 'Toui,' 'Tui,' 'Toi,' 'Koko,' 'Kogo,' of the natives.
Hab. Queen Charlotte's Sound; North and South Islands, N. Z.; Auckland Island.

The specimens of this bird vary much in size.

---

* What is *Halcyon cinnamominus,* Swains. Zool. Illustr. ii. p. 67; G. R. Gr. Voy. of Ereb. & Terr. Birds, p. 3?
Hab. New Zealand (*Swains.*).

11. POGONORNIS CINCTA, G. R. Gr. Gen. of B. i. p. 123.
Meliphaga cincta, Dubus, Bull. Acad. Sc. Brux. vi. pt. i. p. 295; Ellman, Zool. 1861, p. 7466.
Ptilotis auritus, Lafr. Rev. Zool. 1839, p. 257; Mag. de Zool. 1840, Ois. t. 11.
Ptilotis cincta, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 4.
'Kotihe,' 'Ihi,' 'Tihe,' 'Hioi,' 'Kotihetihe,' of the natives.
Hab. Taranaki; North Island, N. Z.

12. ANTHORNIS MELANURA, G. R. Gr. List of Gen. of B. 1840, p. 15, et Voy. Ereb. & Terr. Birds, p. 4; Ellman, Zool. 1861, p. 7466.
Mocking Creeper, Lath. Gen. Syn. ii. p. 735.
Certhia melanura, Sparrm. Mus. Carls. t. 5.
Certhia sannio, Gmel. S. N. i. p. 471.
Certhia olivacea, Forst. Descr. An. p. 79, et Icon. ined. 62.
Philedon dumerilii, Less. Voy. Coqu. Zool. i. p. 644. t. 21. f. 2.
Philedon sannio, Less. Compl. Buff. xi. p. 165.
Anthomyza cæruleocephala, Swains. Cl. of B. ii. p. 327.
'He-ghobarra,' 'Koho-i-mako,' 'Kohorimako,' 'Korimako,' 'Kopara,' 'Kokomako,' 'Korimaku,' 'Korimoko,' 'Kohorimako,' of the natives.
Hab. Queen Charlotte's Sound; Bay of Islands; North and South Islands, N. Z.; Auckland Island.

13. ANTHORNIS MELANOCEPHALA, G. R. Gr. App. to Dieff. Voy. to N. Z. ii. p. 188, et Voy. Ereb. & Terr. Birds, p. 4. pl. 2.
'Mako-mako' of the natives.
Hab. Chatham Island.

CERTHIADÆ.

14. CLIMACTERIS SCANDENS, Temm. Pl. Col. 281. f. 2; v. Pelz. Sitz. Ac. d. Wiss. Wien, xli. p. 320.
Hab. Norfolk Island (*v. Pelz.*).

15. XENICUS* LONGIPES, G. R. Gr. List of Gen. of B. 1855, p. 31.
Long-legged Warbler, Lath. Gen. Syn. iv. p. 465.

---

* Genus XENICUS, G. R. Gr.

Bill moderate, more or less straight, moderately narrow at base, and compressed to tip; culmen slightly curved at apex; margin straight; gonys angulated one-third of its length, and advancing towards the tip, and straight

Motacilla longipes, Gmel. S. N. i. p. 979; Forst. Descr. An. p. 88, et Icon. ined. 165.
Sylvia longipes, Lath. Ind. Orn. ii. p. 529.
Acanthisitta longipes, G. R. Gr. List of Gen. of B. 1841, App. p. 6, et Voy. Ereb. & Terr. Birds, p. 4. pl. 3. f. 1; Ellman, Zool. 1861, p. 7466.
'E-tecte tee pomou,' 'Kakaruai,' 'Mirò-mirò,' of the natives.
Hab. Queen Charlotte's Sound; Rima-taka Hills, N. Z.

16. XENICUS STOKESII, G. R. Gr., sp. nov.

Purplish brown above, tinged with olive on the lower part of the back; quills dull purplish brown with the outer margins olivaceous; beneath purplish white shining in some lights; the sides and abdomen olivaceous; a broad white streak extending from the nostrils over each eye to the hind part of the head; bill black; legs and toes pale yellow.

Bill from gape $7\frac{1}{2}'''$; tarsi $12\frac{1}{2}'''$; wings $2'\ 3'''$; middle toe and claw $9\frac{1}{4}'''$.

Hab. Rima-taka Hills, N. Z. (*Capt. Stokes, R.N.*).

17. ACANTHISITTA CHLORIS, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 4. pl. 3. f. 2 ♀.
♂ *Sitta chloris,* Sparrm. Mus. Carls. t. 33.
Acanthiza tenuirostris, Lafr. Rev. Zool. 1841, p. 212.
Acanthisitta tenuirostris, Lafr. Mag. de Zool. 1842, Ois. t. 27; Ellman, Zool. 1861, p. 7466.
♀ *Citrine Warbler,* Lath. Gen. Syn. iv. p. 464.
Motacilla citrina, Gmel. S. N. i. p. 979.
Sylvia citrina, Lath. Ind. Orn. ii. p. 529.
Motacilla citrinella, Forst. Descr. An. p. 89, et Icon. ined. 164.
Acanthisitta citrina, G. R. Gr. List of Gen. of B. 1841, App. p. 6; Ellman, Zool. 1861, p. 7466.

---

to the base. Nostrils sunk in a short broad groove, with the opening large, oval, and partly closed by a membrane. Wings short, rounded, with the third, fourth, and fifth quills nearly equal and longest. Tarsi lengthened, slender, longer than the middle toe, covered by an entire scale. Toes rather long, slender, inner shorter than the outer and free at the base, the outer one connected nearly to the first joint of the middle toe. Claws long, curved, and very acute.

Juv. ♂ *Sitta punctata,* Quoy & Gaim. Voy. l'Astrol. i. p. 221. t. 18. f. 1.

Acanthisitta punctata, G. R. Gr. List of Gen. of B. 1841, App. p. 6; Ellman, Zool. 1861, p. 7466.

'Piwauwaw,' 'Miru miru,' 'Pihipihi,' 'Mako,' of the natives.

Hab. Port Nicholson, N. Z.

18. MOHOUA OCHROCEPHALA, G. R. Gr. List of Gen. of B. 1841, p. 25; Voy. Ereb. & Terr. Birds, p. 5.

Yellow-headed Flycatcher, Lath. Gen. Syn. ii. p. 342.

Muscicapa ochrocephala, Gmel. S. N. i. p. 944.

Muscicapa chloris, Forst. Descr. An. p. 87, et Icon. ined. 157.

Certhia heteroclites, Quoy & Gaim. Voy. l'Astrol. i. p. 223. t. 17.

Orthonyx icterocephalus, Lafr. Rev. Zool. 1839, p. 257.

Orthonyx heteroclitus, Lafr. Mag. de Zool. 1840, t. 8.

Mohoua hua, Less. Compl. Buff. ix. p. 139.

Orthonyx ochrocephala, G. R. Gr. & Mitch. Gen. of B. i. p. 151. pl. 46.

'Mohoua houa,' 'Popokatea,' 'Mohoua,' of the natives.

Hab. Tasman's Bay; Cook's Straits, N. Z.

19. MOHOUA ? ALBICILLA.

Fringilla albicilla, Less. Voy. Coqu. Zool. i. p. 662.

Parus senilis, Dubus, Bull. Acad. Brux. Sc. vi. pt. i. p. 297.

Certhiparus senilis, Lafr. Rev. Zool. 1842, p. 69.

Certhiparus albicillus, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 6. pl. 5. f. 2.

Certhiparus cinerea, Ellman, Zool. 1861, p. 7465 ?

'Popokotea,' 'Popokatea,' 'Hihipopokera' ?, of the natives.

Hab. Port Nicholson; Bay of Islands, N. Z.

LUSCINIIDÆ.

20. SPHENŒACUS PUNCTATUS, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 5; Ellman, Zool. 1861, p. 7465.

Synallaxis punctata, Quoy & Gaim. Voy. l'Astrol. i. p. 225. t. 18. f. 2.

Megalurus punctatus, G. R. Gr.

'Mata,' 'Matata,' 'Toetoe,' 'Kotata,' 'Korowatito,' of the natives.

Hab. Tasman's Bay, N. Z.

21. **Sphenœacus fulvus**, G. R. Gr., sp. nov.

Bright fulvous, each feather marked along its shaft with black; a white streak from the nostrils passing over the eyes and enlarging beyond them on each side; the front of the head rusty; throat, breast, and middle of abdomen white, more or less minutely dotted with black.

Hab. New Zealand.

This species is much brighter in colour and the black streaks and dots are less prominent than in *S. punctatus.* It is also of a rather larger size, with the bill less and tail shorter than in the former.

22. **Gerygone igata**, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 5.
Curruca igata, Quoy & Gaim. Voy. l'Astrol. i. p. 201. t. 1. f. 2.
Acanthiza igata, G. R. Gr. App. Dieffenb. New Zeal. p. 189.
'Igata' of the natives.
Hab. Tasman's Bay; Cook's Straits, N. Z.

23. **Gerygone flaviventris**, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 5. pl. 4. f. 1.
'Titiripænamu' of the natives.
Hab. Bay of Islands; Waikouaiti, South Island, N. Z.

24. **Gerygone modesta**, v. Pelz. Sitz. Acad. d. Wiss. Wien, xli. p. 320.
Hab. Norfolk Island.

25. **Gerygone? albofrontata**, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 5. pl. 4. f. 2.
Hab. New Zealand.

26. **Certhiparus novæ seelandiæ**, Lafr. Rev. Zool. 1842, p. 69; G. R. Gr. Voy. Ereb. & Terr. Birds, p. 6. pl. 5. f. 1.
New Zealand Titmouse, Lath. Gen. Syn. iv. p. 558.
Parus novæ seelandiæ, Gmel. S. N. i. p. 1013.
Parus urostigma, Forst. Descr. An. p. 90, et Icon. ined. 166; Ellman, Zool. 1861, p. 7465.
'Toetoe,' 'Riro riro,' 'Pipipi,' of the natives.
Hab. Dusky Bay and Northern Island, N. Z.

27. **Certhiparus maculicaudus**, G. R. Gr. App. Dieff. N.Z. ii.

p. 189, et Voy. Ereb. & Terr. Birds, p. 6; Ellman, Zool. 1861, p. 7465.

Parus zealandicus, Quoy & Gaim. Voy. l'Astrol. i. p. 210. t. 11. f. 3.

'Momo-houa,' 'Horirerire,' of the natives.

Hab. Tasman's Bay; North Island, N. Z.

28. ZOSTEROPS TENUIROSTRIS, Gould, P. Z. S. 1836, p. 76, Syn. B. of Austr. pt. i., et B. of Austr. Suppl. pt. iii.; v. Pelz. Sitz. Acad. d. Wiss. Wien, xli. p. 320.

Hab. Norfolk Island (*Gould*) (*v. Pelz.*).

29. ZOSTEROPS ALBOGULARIS, Gould, P. Z. S. 1836, p. 75, Syn. B. of Austr. pt. i., et B. of Austr. Suppl. pt. iii.; v. Pelz. Sitz. Acad. d. Wiss. Wien, xli. p. 320.

Hab. Norfolk Island (*Gould*) (*v. Pelz.*).

30. ZOSTEROPS STRENUUS, Gould, P. Z. S. 1855, p. 166, et B. of Austr. Suppl. pt. ii.

Hab. Lord Howe's Island.

31. ZOSTEROPS TEPHROPLEURUS, Gould, P. Z. S. 1855, p. 166, et B. of Austr. Suppl. pt. ii.

Hab. Lord Howe's Island.

32. PETROICA MACROCEPHALA, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 6.

Great-headed Titmouse, Lath. Gen. Syn. iv. p. 557. pl. 55.

Parus macrocephalus, Gmel. S. N. i. p. 1013.

Turdus minutus, Forst. Descr. An. p. 83, et Icon. ined. 149.

Rhipidura macrocephala, Swains. Nat. Libr. Flyc. p. 122; G. R. Gr. App. Dieff. N. Z. ii. p. 190.

Pachycephala ? *australis*, Steph.

Miro forsterorum, G. R. Gr. App. Dieff. N. Z. ii. p. 191.

Miro macrocephala, Pr. B. Consp. Av. p. 299.

Muscicapa macrocephala, Ellman, Zool. 1861, p. 7465.

Muscicapa minuta, Ellman, Zool. 1861, p. 7465 ?

'Mirro mirro,' 'Pirangirangi,' of the natives.

Hab. Queen Charlotte's Sound, N. Z.; Auckland Island.*

* What is *Muscicapa melanura*, Ellman? "Tail white."
'Miro miro' of the natives.
Closely allied to *M. macrocephala.*

33. Petroica dieffenbachii, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 6. pl. 6. f. 1.
Miro dieffenbachii, G. R. Gr. App. Dieff. N. Z. ii. p. 191.
Hab. Chatham Island.

34. Petroica toitoi, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 6.
Muscicapa toitoi, Garn. Voy. Coqu. Zool. i. p. 590, Ois. t. 15. f. 3.
Miro toitoi, G. R. Gr. App. Dieff. N. Z. ii. p. 191.
Myiomoira toitoi, Reichenb.
Muscicapa albopectus, Ellman, Zool. 1861, p. 7465 ?
'Nirungiru,' 'Ngirungiru,' 'Miro-miro,' 'To-i-toe,' 'Miro-toitoi,' of the natives.
Hab. Port Nicholson, N. Z.

35. Petroica longipes, G. R. Gr.
Muscicapa longipes, Garn. Voy. Coqu. Zool. i. p. 594, Ois. t. 19. f. 1; Ellman, Zool. 1861, p. 7465.
Myiothera novæ zealandiæ, Less.
Turdus australis, Sparrm. Mus. Carls. t. 69 ?
Miro longipes, Less. Tr. d'Orn. p. 389.
Saxicola longipes, Temm.
Petroica australis, (Sparrm.) G. R. Gr. Voy. Ereb. & Terr. Birds, p. 7; G. R. Gr. Gen. of B. i. p. 183 ?
Miro australis, Pr. B. Consp. Av. p. 299.
Aplonis australis, G. R. Gr. App. Dieff. N. Z. ii. p. 192 ?
'Miro miro,' 'Totoara,' of the natives.
Hab. Bay of Islands; Dusky Bay, N. Z.

36. Petroica albifrons, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 7. pl. 6. f. 2.
White-fronted Thrush, Lath. Gen. Syn. iii. p. 71.
Turdus albifrons, Gmel. S. N. i. p. 822.
Turdus ochrotarsus, Forst. Descr. An. p. 82, et Icon. ined. 148.
Miro albifrons, G. R. Gr. App. Dieff. N. Z. ii. p. 190; Pr. B. Consp. Av. p. 299.
Muscicapa saxicolina, Licht.
Muscicapa albifrons, Ellman, Zool. 1861, p. 7465.
Hab. South Island, N. Z.

37. PETROICA ERYTHROGASTRA, Gould, B. of Austr. iii. pl. 4.
Red-bellied Flycatcher, Lath. Gen. Syn. iii. p. 343. pl. 50.
Muscicapa erythrogastra, Gmel. S. N. i. p. 944.
Petroica modesta et *P. pulchella,* Gould.
Hab. Norfolk Island.*

38. ANTHUS NOVÆ ZEALANDIÆ, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 7.
New Zealand Lark, Lath. Gen. Syn. iv. p. 384.
Alauda novæ seelandiæ, Gmel. S. N. i. p. 799.
Alauda novæ zealandiæ, Lath.
Alauda littorea, Forst. Descr. An. p. 90, et Icon. ined. 143; Ellman, Zool. 1861, p. 7466.
'Kogoo-aroure,' 'Kataitai,' of the natives.
Hab. Queen Charlotte's Sound; Bay of Islands; Cook's Straits, N. Z.

39. ANTHUS AUCKLANDICUS, G. R. Gr., sp. nov.
Anthus novæ zealandiæ, p., G. R. Gr. Voy. Ereb. & Terr. Birds, p. 7.
Hab. Auckland Island.

Probably a distinct species from the former one, with a triflingly larger foot.

40. ANTHUS ——?, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 7.
Alauda ——, Forst. Descr. An. p. 91.
Anthus grayi, Pr. B. Consp. Av. p. 249.
Hab. Queen Charlotte's Sound, N. Z.

TURDIDÆ.

41. TURDUS VINITINCTUS, Sclater, Ibis, 1861, p. 281.
Merula vinitincta, Gould, P. Z. S. 1855, p. 165, et B. of Austr. Suppl. pt. ii.
Hab. Lord Howe's Island.

42. TURDUS POLIOCEPHALUS, Lath. Ind. Orn. Suppl. p. xliv.
Turdus fuliginosus, Lath.?
Merula nestor, Gould (ex Norfolk Island).

---

* What is the "most beautiful small bird" from Lord Howe's Island, referred to by Phillip in his Voy. Bot. Bay, p. 225, which he describes as "brown, with yellow breast and yellow on the wings," and further speaks of as being "like a Humming-Bird"?

Geocichla poliocephala, Pr. B. Consp. Av. p. 268.
Merula poliocephala, Gould, B. of Austr. Suppl. pt. iii.
Hab. Norfolk Island (*Lath.*).

43. Turnagra crassirostris, G. R. Gr. List of Gen. of B. 1841, p. 38, et Voy. Ereb. & Terr. Birds, p. 7; Ellman, Zool. 1861, p. 7465.
Thick-billed Thrush, Lath. Gen. Syn. iii. p. 34. pl. 37.
Tanagra capensis, Sparrm. Mus. Carls. t. 45.
Turdus crassirostris, Gmel. S. N. i. p. 815.
Loxia turdus, Forst. Descr. An. p. 85, et Icon. ined. 145.
Tanagra macularia, Quoy & Gaim. Voy. l'Astrol. Zool. i. p. 186. t. 7. f. 1.
Lanius crassirostris, Cuv. Règ. An. p. 338.
Campephaga ferruginea, Vieill. Enc. Méth. p. 857.
Keropia crassirostris, G. R. Gr. List of Gen. of B. 1840, p. 28.
Otagon turdus, Pr. B. Consp. Av. p. 374.
Ceropia crassirostris, Sundev.
'Golobieo,' 'Pio-pio,' 'Keropia,' 'Koho eou,' 'Kakaroeo,' 'Koropio,' of the natives.
Hab. South Island, N. Z.

Muscicapidæ.

44. Rhipidura flabellifera, G. R. Gr. App. Dieff. N. Z. ii. p. 190, et Voy. Ereb. & Terr. Birds, p. 8.
Fan-tailed Flycatcher, Lath. Gen. Syn. iii. p. 340. pl. 49.
Muscicapa flabellifera, Gmel. S. N. i. p. 943.
Muscipeta flabellifera, Temm.
"*Rhipidura albiscapa,* Gould," Cass. U. S. Expl. Exped. 1858, viii. p. 150.
Muscicapa ventilabrum, Forst. Descr. An. p. 86, et Icon. ined. 155; Ellman, Zool. 1861, p. 7465.
'Diggowaghwagh,' 'Piwaka-waka,' 'Pi-oua-ka-oua-ka,' 'Hi-waka-waka,' 'Hee-waka-waka,' 'Titiwaiko,' 'Te-waka-waka,' of the natives.
Hab. South Island; Dusky Bay; Bay of Islands, N. Z.

45. Rhipidura melanura, G. R. Gr. App. Dieff. N. Z. ii. p. 190, et Voy. Ereb. & Terr. Birds, p. 8.
Hab. Cook's Straits, N. Z.; Chatham Island.

46. RHIPIDURA PELZELNI, G. R. Gr.
Rhipidura assimilis, v. Pelz. Sitz. Acad. d. Wiss. Wien, xli. p. 320.
Fantail, Downing, Proc. Roy. Soc. Tasmania?
Hab. Norfolk Island.

47. RHIPIDURA TRISTIS, Hombr. & Jacq. Voy. Pôle Sud, Zool. i. p. 76. t. 111. f. 5.
Rhipidura melanura, p., Pr. B. Consp. Av. p. 324.
Hab. Otago, N. Z.

AMPELIDÆ.

48. PACHYCEPHALA XANTHOPROCTA, Gould, P.Z.S. 1837, p. 149, et Syn. B. of Austr. pl. . f. .
Hab. Norfolk Island (*Pr. B.*); doubtful if N. S. W. (*Gould*).

49. PACHYCEPHALA LONGIROSTRIS, Gould, P. Z. S. 1837, p. 149, et Syn. B. of Austr. pl. . f. .
Hab. Norfolk Island (*Pr. B.*); doubtful if N. S. W. (*Gould*).

50. CAMPEPHAGA LONGICAUDATA, v. Pelz. Sitz. Acad. d. Wiss. Wien, xli. p. 321.
Hab. Norfolk Island.
Probably the same as the next species.

51. SYMMORPHUS LEUCOPYGIUS, Gould, P. Z. S. 1837, p. 145.
Campephaga leucopygia, G. R. Gr.
Hab. Norfolk Island.

CORVIDÆ.*

52. CALLÆAS CINEREA, Forst. Descr. An. p. 74, et Icon. ined. 52; G. R. Gr. Voy. Ereb. & Terr. Birds, p. 8; Ellman, Zool. 1861, p. 7466.
Cinereous Wattled Bird, Lath. Gen. Syn. i. p. 364. pl. 14.
Glaucopis cinerea, Gmel. S. N. i. p. 363.
Cryptorhina callæus, Wagl.
'Kokako' of the natives.
Hab. New Zealand.

---

* What is the bird found on Lord Howe's Island, and mentioned in Phillip's Voy. Bot. Bay, p. 225, where it is designated "Magpie"?

53. CALLÆAS WILSONI, G.R.Gr. MSS.; Pr. B. Consp. Av. p. 368.
Hab. New Zealand.

STURNIDÆ.

54. APLONIS ZELANDICUS, G. R. Gr. App. Dieff. N. Z. ii. p. 191, et Voy. Ereb. & Terr. Birds, p. 8.
Lamprotornis zealandicus, Quoy & Gaim. Voy. l'Astrol. i. p.   . t. 9. f. 1.
Hab. Tasman's Bay, N. Z.

55. APLONIS OBSCURUS, G. R. Gr. App. Dieff. N. Z. ii. p. 191, et Voy. Ereb. & Terr. Birds, p. 8.
Lamprotornis obscurus, Dubus, Bull. Acad. Sci. Brux. vi. pt. i. p. 297.
Hab. New Zealand; Norfolk Island (*v. Pelz.*).

56. CREADION CARUNCULATUS, G. R. Gr. List of Gen. of B. 1841, p. 51.
Wattled Stare, Lath. Gen. Syn. iii. p. 9. pl. 36.
Sturnus carunculatus, Gmel. S. N. i. p. 805; Forst. Descr. An. p. 81, et Icon. ined. 144; Ellman, Zool. 1861, p. 7466.
Creadion pharoides, Vieill. Enc. Méth.
Icterus rufusater ex *I. novæ zealandiæ,* Less. & Garn. Voy. Coqu. Zool. t. 23. f. 1.
Xanthornus carunculatas, Quoy & Gaim. Voy. l'Astrol. t. 12. f. 4.
Oxystomus carunculatus, Swains. Cl. of B. ii. p. 270.
'Tieke,' 'Tira-ouake,' 'Tiaka,' 'Purourou,' 'Tierawaki,' 'Tiaki,' 'Tieke,' of the natives.
Hab. North and South Islands; Tasman's Bay, N. Z.

PSITTACIDÆ.

57. PLATYCERCUS PENNANTII, Vig. & Horsf. Linn. Trans. xv. p. 280.
Psittacus pennantii, Lath. Ind. Orn. i. p. 90; Downing, Proc. Roy. Soc. Tasmania.
Psittacus gloriosus et *P. splendidus,* Shaw.
Psittacus elegans, Gmel. S. N. i. p. 318.
Hab. Norfolk Island.
This bird differs but slightly from Australian examples.

58. Platycercus pacificus, Vig. Zool. Journ. i. p. 529.
Pacific Parrot, Lath. Gen. Syn. i. p. 252.
Psittacus pacificus, Gmel. S. N. i. p. 329.
Cyanoramphus novæ zealandiæ, Pr. B. Rev. et Mag. de Zool. 1854, p. 153.
Platycercus novæ zealandiæ, Ellman, Zool. 1861, p. 7467.
'Kakiriki,' 'Powaitere,' 'Po-è-tèrè,' 'Kakariki,' of the natives.
Hab. South Island, N. Z.; Chatham Island.

59. Platycercus rayneri, G. R. Gr., sp. nov.

Upper surface green; front and vertex crimson; spot on the ear-coverts slightly indicated by obscure crimson; quills fuscous black, with the outer web of each feather light purplish blue, slightly margined with green, and narrowly edged with yellow; tail-feathers beneath fuscous black, with the ends and inner margins of the outer feathers yellow-brown.

Hab. Norfolk Island (*Mr. Rayner, R.N.*).

This species is easily distinguished from the New Zealand bird (*P. pacificus*), which has the upper surface dull green; the front, vertex, and spot on the ear-coverts carmine; quills fuscous black, with the outer web of each feather purplish blue, margined with green, and narrowly edged with yellow; and the outer tail-feathers beneath yellowish brown. The corresponding bird from Macquarie's Island (*P. erythrotis*) also differs, as it is of a general yellowish-green colour; the front, vertex, and spot on the ear-coverts are crimson; the quills fuscous black, with the outer web of the first three feathers blue, margined with green, edged with yellow; the rest of the quills have the outer webs yellowish green, edged with yellow; the under surface of the tail-feathers is entirely of a yellowish brown.

60. Platycercus erythrotis, Wagl. Monogr. Psitt. p. 526.
Platycercus pacificus, p., Vig. Zool. Journ. i. p. 529.
Cyanoramphus erythrotis, Pr. B. Rev. Zool. 1854, p. 153.
Platycercus pacificus, Bourj. Perr. t. 36.
Hab. Macquarie's Island.

61. Platycercus cookii, G. R. Gr. List of Psitt. B. M. p. 13.
Hab. New Zealand.

2. Platycercus aucklandicus, G. R. Gr. List of Psitt. B. M. p. 13.
Psittacus pacificus, var. β, Gmel.
Psittacus novæ zealandiæ, var. 2, Kuhl.
Hab. Auckland Island.

63. ? Platycercus unicolor, Vig. Zool. Journ. 1831, p. 24; Lear's Parr. pl. 25.
Psittacus platycercus viridis unicolor, Bourj. Perr. t. 34.
Cyanoramphus unicolor, Pr. B. Rev. et Mag. de Zool. 1854, p. 153.
Hab. New Zealand?

64. Platycercus auriceps, Vig. Zool. Journ. i. p. 531, Suppl. pl. 2; Ellman, Zool. 1861, p. 7467.
Psittacus pacificus, var. δ, Gmel. S. N. i. p. 329.
Psittacus (*Conurus*) *auriceps,* Kuhl, Consp. Psitt. p. 46.
Platycercus novæ zealandiæ, Bourj. Perr. t. 37.
Cyanoramphus auriceps, Pr. B. Rev. et Mag. de Zool. 1854, p. 153; Souancé, Rev. Zool. 1856, p. 212.
'Potarakina' of the natives.
Hab. New Zealand.

65. Platycercus malherbii, G. R. Gr. List of Psitt. B. M. p. 14.
Cyanoramphus malherbii, Souancé, Rev. et Mag. de Zool. 1857, p. 98.
Hab. Auckland Island.

66. Nestor meridionalis, G. R. Gr. App. Dieff. N. Z. ii. p. 193, et Voy. Ereb. & Terr. Birds, p. 9; Ellman, Zool. 1861, p. 7467.
Southern Brown Parrot, Lath. Gen. Syn. i. p. 264.
Psittacus meridionalis, Gmel. S. N. i. p. 333.
Psittacus nestor, Lath. Ind. Orn. i. p. 110.
Psittacus australis, Shaw, Mus. Lever. p. 87.
Psittacus hypopolius, Forst. Descr. An. p. 72; Icon. ined. 50.
Psittacus (*Kakadoe*) *nestor,* Kuhl, Consp. Psitt. p. 86.
Nestor hypopolius, Wagl. Monogr. Psitt. p. 696; Gould, B. of Austr. Suppl. pt. iii.

Nestor novæ zealandiæ, Less. Tr. d'Orn. p. 191.
Centrourus australis, Swains. Cl. of B. ii. p. 303.
'Kaka' of the natives.
Hab. New Zealand.

67. Nestor esslingii, Souancé, Rev. et Mag. de Zool. 1856, p. 223; Gould, B. of Austr. Suppl. pt. iii.
Nestor novæ zealandiæ, Pr. B. Rev. et Mag. de Zool. 1854, p. 155.
Hab. New Zealand.

68. Nestor notabilis, Gould, P. Z. S. 1856, p. 94; B. of Austr. Suppl. pt. iii.
'Kea' of the natives.
Hab. Murikiku Country, Middle Island, N. Z.

69. Nestor productus, Gould, B. of Austr. v. pl. 6.
Plyctolophus productus, Gould, P. Z. S. 1836, p. 19.
Centrurus productus, Pr. B. Cab. Journ. für Ornith. 1856, p. .
? *Nestor norfolcensis*, v. Pelz. Sitz. Acad. d. Wiss. Wien, xli. p. 323.
Hab. Phillip Island; Norfolk Island.

70. Strigops habroptilus, G. R. Gr. P. Z. S. 1847, p. 62; G. R. Gr. & Mitch. Gen. of B. ii. pl. 105; Gould, B. of Austr. Suppl. pl. ; Ellman, Zool. 1861, p. 7467.
Centropus (?) G. R. Gr. App. Dieff. N. Z. p. 194 (note); Voy. Ereb. & Terr. Birds, p. 9.
'Tarapo,' 'Kakapo,' of the natives.
Hab. North Island; South-west end of Middle Island, N. Z.

There probably exists a second species of this remarkable genus, which may be characterized by the light-blue colour on the sides and tip of each plume, in the place of yellowish green; also by the plumes being white instead of yellow, and by their being more numerously banded (regularly and irregularly) with black; these bands appear more decided on the wings and tail than in the former species. Should other specimens determine it to be a distinct species, it is proposed by Mr. G. R. Gray that it should be named *Strigops greyii*, in honour of His Excellency Sir G. Grey, K.C.B., who presented the example which forms the subject of these remarks to the British Museum, and who has done so much in extending our knowledge of the birds of the regions on which this paper more especially treats.

Beautiful Parrots and Parroquets are recorded as having been found on Lord Howe's Island (Phill. Bot. Bay, p. 225) and on Macaulay's Island (p. 228).

A third species of the family is stated to have been found on Norfolk Island (Downing, Proc. Roy. Soc. Tasmania); but two species only are at present recorded in this list.

CUCULIDÆ.

71. EUDYNAMYS TAÏTENSIS, G. R. Gr. App. Dieff. N. Z. ii. p. 193.
Society Cuckow, Lath. Gen. Syn. ii. p. 514.
Cuculus taitensis, Sparrm. Mus. Carls. t. 32; Ellman, Zool. 1861, p. 7467.
Cuculus taitius, Gmel. S. N. i. p. 412.
Cuculus fasciatus, Forst. Descr. An. p. 160; Icon. ined. 56.
Eudynamys cuneicauda, Peale, Expl. Exped. 1848, p. 139.
'Kohepuroa,' 'Koekoea,' 'Kohaperoa,' 'Kohihi,' 'Kawakawea,' of the natives.
Hab. Port Nicholson; Otago, N. Z.

72. CHRYSOCOCCYX LUCIDUS, G. R. Gr. App. Dieff. N. Z. ii. p. 193; Voy. Ereb. & Terr. Birds, p. 10.
Shining Cuckow, Lath. Gen. Syn. ii. p. 528. pl. 23.
Cuculus lucidus, Gmel. S. N. i. p. 421; Ellman, Zool. 1861, p. 7467.
Cuculus nitens, Forst. Descr. An. p. 151; Icon. ined. 57.
'Poopoo arouro,' 'Pipiwawarou,' 'Pipiwarouro,' 'Pipiwarouroa,' of the natives.
Hab. Queen Charlotte's Sound; Port Nicholson, N. Z.

COLUMBIDÆ.

73. CARPOPHAGA NOVÆ ZEALANDIÆ, G. R. Gr. App. Dieff. N. Z. ii. p. 194.
New Zealand Pigeon, Lath. Gen. Syn.
Columba novæ seelandiæ, Gmel. S. N. i. p. 773; Ellman, Zool. 1861, p. 7467.
Columba zelandica, Lath. Ind. Orn. ii. p. 603.

Columba argetræa, Forst. Descr. An. p. 80; Icon. incd. 137.
Columba spadicea, (Lath.) Less. Voy. Coqu. Zool. i. p. 710.
Hemiphaga novæ zealandiæ, Pr. B. Consp. Av. ii. p. 38.
Columba spadicea leucophæa, Hombr. & Jacq. Ann. Sci. Nat. xiv. p. 319?
'Hagarreroo,' 'Kuku,' 'Kukupa,' 'Cucupyi,' 'Kĕreru,' of the natives.
Hab. South Island; Dusky Bay, N.Z.

74. CARPOPHAGA SPADICEA, G. R. Gr. List of Gall. B. M. p. 6.
Columba spadicea, Lath. Ind. Orn. Suppl. p. lx.
Hemiphaga spadicea, Pr. B. Consp. Av. ii. p. 39; v. Pelz. Sitz. Acad. d. Wiss. Wien, xli. p. 326.
Columba leucogaster, Wagl. Syst. Av.
Columba princeps, Vig. P. Z. S. 1833, p. 78.
Carpophaga princeps, Reichenb. Syst. Av. p. xxvi.
'*Wood Queest*' of the colonists, Downing, Proc. Roy. Soc. Tasmania.
Hab. Norfolk Island.*

75. ? CARPOPHAGA NORFOLCIENSIS, G. R. Gr. List of Gall. B. M. p. 5.
Columba norfolciensis, Lath. Ind. Orn. Suppl. p. lx.
Columba leucomela, Temm. Pl. Col. 186.
Hab. Norfolk Island (*Lath.*).

76. PHAPS PICATA, Selby, Nat. Libr. v. p. 194.
Columba picata, Lath. Ind. Orn. Suppl. p. lix.
Columba melanoleuca, Lath.
Columba jamiesoni, Quoy & Gaim. Voy. l'Uranie, p. 123.
Columba armillaris, Temm. Pig. t. 6.
Leucosarcia picata, Gould, B. of Austr. v. pl. 63; v. Pelz. Sitz. Acad. d. Wiss. Wien, xli. p. 326.
Hab. Norfolk Island (*v. Pelz.*).

77. PHAPS CHALCOPTERA, Selby, Nat. Libr. v. p. 195. pl. 21.
Columba chalcoptera, Lath. Ind. Orn. ii. p. 604; Phill. Bot. Bay, pl. p. 162.

---

* What is the "very large Pigeon" referred to by Phillips in his Voy. Bot. Bay, p. 225, as found in Lord Howe's Island?

Peristera chalcoptera, Swains. Cl. of B. ii. p. 349.
Hab. Norfolk Island (*Phill.*).*

TETRAONIDÆ.

78. COTURNIX NOVÆ ZEALANDIÆ, Quoy & Gaim. Voy. l'Astrol. Zool. i. p. 242. t. 24. f. 1, et Voy. Ereb. & Terr. Birds, p. 10. pl. 8; Ellman, Zool. 1861, p. 7468.
'Koreke,' 'Moho-koreke,' 'Kokoreke,' of the natives.
Hab. Chouraki Bay; North and South Islands, N. Z.

APTERYGIDÆ.

79. APTERYX AUSTRALIS, Shaw, Nat. Misc. pls. 1057, 1058; Bartl. P. Z. S. 1850, p. 275; Sclat. & Hochst. Nat. Hist. Rev. 1861, p. 504.
Dromiceius novæ zealandiæ, Less. Man. d'Orn. ii. p. 210.
'Kivi,' 'Kiwikiwi,' of the natives.
Hab. South-east coast of New Zealand (*Shaw*); Dusky Bay; Otago; Middle Island.

80. APTERYX MANTELLII, Bartl. P. Z. S. 1850, p. 275; Sclat. & Hochst. Nat. Hist. Rev. 1861, p. 505.
Apteryx australis, Gould, B. of Austr. vi. pl. 2.
'Kiwi-nui' of the natives.
Hab. Hokianga River; East Cape; North Island; Houtourou or Little Barrier Island, near Auckland, N. Z.

81. APTERYX MAXIMA, Verr. Pr. B. Compt. Rend. 1856, p. 841; Sclat. & Hochst. Nat. Hist. Rev. 1861, p. 506.
Apteryx major, Ellman, Zool. 1861, p. 7468?
'*Fireman*,' Gould, B. of Austr. in letterpr. to *Apteryx australis*.
'Kiwi parure,' 'Roa roa,' of the natives.
Hab. Nelson; Middle Island, N. Z.

82. APTERYX OWENII, Gould, P. Z. S. 1847, p. 94; B. of Austr. iv. pl. 3; Sclat. & Hochst. Nat. Hist. Rev. 1861, p. 505.

---

* What is *Columba ænea*, var. β, Lath.?—*Hab.* New Zealand.
What is *Columba brunnea*, Lath.?—*Hab.* New Zealand.
Probably both are given with wrong locality.

The late Mr. Percy Earl mentioned a Pigeon of New Zealand with "the head and neck white, the former crested" (Voy. Ereb &. Terr. Birds, p. 10).

Apteryx mantellii, juv., Schleg.
'Kivi-iti' of the natives.
Hab. South Island; Nelson, N. Z.*

CHARADRIADÆ.

83. CHARADRIUS XANTHOCHEILUS, G. R. Gr. App. Dieff. N. Z. ii. p. 195; Ellman, Zool. 1861, p. 7469.
Charadrius virginianus, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 11.
'Tuturiwhata,' 'Pakihitaki,' 'Tuturuata,' of the natives.
Hab. New Zealand; Norfolk Island (*v. Pelz.*).

84. CHARADRIUS OBSCURUS, Gmel. S. N. i. p. 686; G. R. Gr. Voy. Ereb. & Terr. Birds, p. 11. pl. 9; Ellman, Zool. p. 7469.
Dusky Plover, Lath. Gen. Syn. v. p. 211.
Charadrius glareola, Forst. Descr. An. p. 109; Icon. ined. 122.
'Moakura,' 'Ha-poho-era,' 'Tuturiwata pukunui,' 'Pututo,' of the natives.
Hab. South Island; Dusky Bay; Waikouaiti, N. Z.

85. CHARADRIUS BICINCTUS, Jard. & Selb. Ill. of Orn. pl. 28.
Chestnut-breasted Plover, Lath. Hist. of B. ix. p. 324.
Hiaticula bicincta, Gould, B. of Austr. vi. pl. 16; G. R. Gr. Voy. Ereb. & Terr. Birds, p. 12.
Charadrius xanthocheilus, Ellman, Zool. p. 7469?
Hab. New Zealand.

86. CHARADRIUS FRONTALIS, Ellman, Zool. 1861, p. 7469.
Anarhynchus frontalis, Quoy & Gaim. Voy. l'Astrol. i. p. 252. t. 31. f. 2; G. R. Gr. Voy. Ereb. & Terr. Birds, p. 12.
Thinornis? frontalis, G. R. Gr. Gen. of B. iii. p. 545.
Hab. Chouraki Bay, N. Z.

The bird is represented in the "Voyage of the Astrolabe" with a deformed bill. The bill is perfectly straight in most specimens.

87. THINORNIS NOVÆ SEELANDIÆ, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 12. pl. 11.
New Zealand Plover, Lath. Gen. Syn. v. p. 206. pl. 83.

---

* What is the *Little Apteryx* (*Kiwi hoihoi*), Ellman, Zool. 1861, p. 7469?

Charadrius novæ seelandiæ, Gmel. S. N. i. p. 684.
Charadrius novæ zealandiæ, Lath.
Charadrius dudoroa, Wagl. Syst. Av.
Charadrius torquatula, Forst. Descr. An. p. 108; Icon. ined. 121.
Hiaticula novæ seelandiæ, G. R. Gr. App. Dieff. N.Z. ii. p. 195.
Charadrius atricinctus, Ellman ?, Zool. p. 7469.
'Doodooroo attoo,' 'Kukuruatu,' of the natives.
Hab. Dusky Bay; Queen Charlotte's Bay; between Tairi and Otago, South Island, N. Z.

88. THINORNIS ROSSII, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 12. pl. 11*.
Hab. Auckland Island.

89. HÆMATOPUS LONGIROSTRIS, Vieill. Nouv. Dict. d'H. N. xv. p. 410; G. R. Gr. Voy. Ereb. & Terr. Birds, p. 12; Gould, B. of Austr. vi. pl. 7.
Hæmatopus picatus, Vig. King's Voy. Austr. App. p. 420; G. R. Gr. App. Dieff. N. Z. ii. p. 196; Ellman, Zool. 1861, p. 7469.
Hæmatopus australiasianus, Gould, P. Z. S. 1837, p. 155.
'Toria,' 'Torea,' 'Toria nui,' of the natives.
Hab. New Zealand.

90. HÆMATOPUS UNICOLOR, Forst. Descr. An. p. 112; Wagl. Isis, 1832, p. 1230, et Voy. Ereb. & Terr. Birds, p. 12. pl. 10.
Black Oyster-catcher, p., Lath. Gen. Hist. ix. p. 358.
Hæmatopus niger, Ellman, Zool. 1861, p. 7469.
Hab. New Zealand.

ARDEIDÆ.

91. ARDEA FLAVIROSTRIS, Wagl.
Herodias flavirostris, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 12.
Ardea alba, Ellman, Zool. 1861, p. 7469.
Ardea alba, p., Lath. Ind. Orn. ii. p. 695.
'Katuka,' 'Kotuku' (?), 'Koutuku,' of the natives.
Hab. Tairi River; South Island, N. Z.

92. ARDEA MATOOK, Vieill. N. Dict. d'H. N. xiv. p. 416.
Blue Heron, Lath. Gen. Syn. v. p. 79.

Ardea cærulea, var. γ, Gmel. S. N. i. p. 631.
Ardea jugularis, Forst. Descr. An. p. 172; Icon. ined. 114.
New Zealand Heron, Lath. Hist. of B. ix. p. 128.
Herodias matook, G. R. Gr. App. Dieff. N. Z. ii. p. 196.
Ardea cinerea, Ellman, Zool. 1861, p. 7469.
'Matook,' 'Matuku-wai-tai,' 'Matou-cou,' of the natives.
Hab. Queen Charlotte's Sound, N. Z.

93. Botaurus poicilopterus, G. R. Gr. Gen. of B. iii. p. 557.
Ardea (*Botaurus*) *australis*, Cuv.? Less. Tr. d'Orn. p. 572.
Ardea poicilopterus, Wagl. Syst. Av. Ard.
Botaurus melanotis, G. R. Gr. App. Dieff. N. Z. ii. p. 196, et Voy. Ereb. & Terr. Birds, p. 13; Ellman, Zool. 1861, p. 7469.
'Matuku,' 'Matuku-urepo'?, 'Matukuhurepo,' of the natives.
Hab. New Zealand.*

94. Platalea ——?
Ardea latirostrum (*Spoonbill*), Ellman, Zool. 1861, p. 7469.
'Koutuku-ngutu-papa' of the natives.
Hab. Castle Point, East Coast of North Island, N. Z.

95. Platalea ——?
Spoonbill, Downing, Proc. Roy. Soc. Tasmania.
Hab. Norfolk Island (*Down.*).

Scolopacidæ.

96. Limosa novæ zealandiæ, G. R. Gr. Gen. of B. iii. p. 572.
Limosa lapponica, var. *novæ zealandiæ*, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 13.
Limosa baueri, Natt. Naum. Vög. Deutsch. viii. p. 429.
Gallinago punctata, Ellman, Zool. 1861, p. 7470.
'Ririwaka,' 'Kohikuhikuaka,' of the natives.
Hab. Waikouaiti, N. Z.; Norfolk Island (*v. Pelz.*).

97. Totanus glottoïdes, Gould, B. of Austr. vi. pl. 36.
Scolopax glottis, Linn.
Totanus glottis, v. Pelz. Sitz. Acad. d. Wiss. Wien, xli. p. 327.
Hab. Norfolk Island (*v. Pelz.*).

---

* What is the *Little Bittern*, Ellman, Zool. 1861, p. 7469?

98. HIMANTOPUS NOVÆ ZEALANDIÆ, Gould, P.Z.S. 1841, p. 320, et B. of Austr. vi. pl. 25; G. R. Gr. App. Dieff. N. Z. ii. p. 196.

Himantopus melas, Hombr. et Jacq. Ann. des Sci. Nat. 1841, p. 320; Voy. au Pôle Sud, Ois. t. 30. f. 2.

Himantopus niger, Ellman, Zool. 1861, p. 7470.

Himantopus picatus, Ellman.

'Tutumata,' 'Poako,' 'Torea iti,' 'Torea aiti,' of the natives.

Hab. Mataineka, South Island, N. Z.*

99. RECURVIROSTRA —— ?

Avocetta novæ zealandiæ (*Avocet*), Ellman, Zool. 1861, p. 7470.

'Piwari' of the natives.

Hab. New Zealand.

100. RECURVIROSTRA RUBRICOLLIS, Temm. Man. d'Orn. ii. p. 592; Downing, Proc. Roy. Soc. Tasmania.

Recurvirostra novæ hollandiæ, Vieill.

Hab. Norfolk Island (*Down.*).

101. CŒNOCORYPHA AUCKLANDICA, G. R. Gr. Cat. of Gen. & Subg. of B. B.M. 1855, p. 119.

Gallinago aucklandica, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 13. pl. 13.

Scolopax holmesi, Peale, Expl. Exped. 1848, viii. p. 229.

Hab. South Island, N. Z.; Auckland Island.

RALLIDÆ.

102. OCYDROMUS AUSTRALIS, Strickl. Ann. N. H. vii. p. 39; G. R. Gr. List of Gen. of B. 1841, p. 91, et App. Dieff. N.Z. ii. p. 197.

Troglodyte Rail, Lath. Gen. Syn. v. p. 229.

Rallus australis, Sparrm. Mus. Carls. t. 14; Ellman, Zool. p. 7470.

Rallus troglodytes, Forst. Descr. An. p. 110; Icon. ined. 126.

---

* What is *Himantopus albus,* Ellman, Zool. 1861, p. 7470?
'Torea iti' of the natives. Smaller than the former; white; wings indigo-black.

Ocydromus troglodytis, Wagl. Nat. Syst. der Amphibien, 1830, p. 98.
'Weka' of the natives.
Hab. South Island; Dusky Bay; Cook's Straits; North Island; Middle Island; Milford Sound; Port Cooper, N. Z.*

103. OCYDROMUS EARLI, G. R. Gr.
? *Rallus rufus,* Ellman, Zool. 1861, p. 7470.
? 'Moho kura' of the natives.
? *Great Red Rail,* Ellman.

Above fuscous black, each feather broadly margined on the sides with deep fulvous; top of the head, ear-coverts, back of neck, and sides of the breast rufous fulvous; eyebrows, throat, and middle of abdomen obscure grey; sides of abdomen and vent obscure rufous fulvous, irregularly spotted with paler; under tail-coverts pale fulvous, banded with fuscous; quills fuscous, margined with fulvous, inner webs banded with reddish fulvous; bill and feet horn-coloured.

About the same size as the preceding.

Hab. New Zealand (*Mr. Percy Earl*).

104. OCYDROMUS BRACHYPTERUS, G.R.Gr. Gen. of B. iii. p. 596.
Gallirallus brachypterus, Lafr. Rev. Zool. 1841, p. 243; Mag. de Zool. 1842, Ois. t. 24.
Gallirallus fuscus, Dubus, Esquis. Ornith. t. 11.
Rallus niger (*Great Black Rail*), Ellman, Zool. 1861, p. 7470.
'Moho' of the natives.
Hab. New Zealand.

105. HYPOTÆNIDIA DIEFFENBACHII, Pr. B. Compt. Rend. 1856, p. 599.
Rallus dieffenbachii, G. R. Gr. App. Dieff. N. Z. ii. p. 197.

---

* What is *Rallus fuscus* (*Great Brown Rail*), Ellman, Zool. 1861, p. 7471? 'Moho weka' of the natives. Larger than the *Rallus rufus.* Dark brown.

What is *Rallus strepitans* (*Great Spotted Rail*), Ellman, Zool. 1861, p. 7471? 'Moho pu' of the natives. Spotted with red and white on a brown ground.

These are supposed to be varieties of the *Ocydromus australis.*

Ocydromus dieffenbachii, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 14. pl. 15.
'Moeriki' of the natives.
Hab. Chatham Island.

106. Rallus assimilis, G. R. Gr. App. Dieff. N. Z. ii. p. 197; Ellman, Zool. 1861, p. 7470.
Hypotænidia striata, p., Pr. B. Compt. Rend. 1856, p. 599.
Rallus rufopes, Ellman ?, Zool. 1861, p. 7470.
'Moho pereru ?,' 'Konini,' 'Katatai,' 'Moho katatai,' of the natives.
Hab. Cook's Straits, N. Z.*

107. Ortygometra affinis, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 14.
Porzana affinis, Pr. B. Compt. Rend. 1856, p. 599.
Rallus punctatus, Ellman, Zool. 1861, p. 7470.
'Moho patatai' of the natives ?
Hab. Nanganui River, North Island, N. Z.

108. Ortygometra tabuensis, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 14.
Tabuan Rail, Lath. Gen. Syn. v. p. 235.
Rallus tabuensis, Gmel. S. N. i. p. 717.
Rallus minutus, Forst. Descr. An. p. 178; Icon. ined. 130.
Crex plumbea, Gray.
Zapornia ? *tabuensis,* Pr. B. Compt. Rend. 1856, p. 599.
Rallus minor, Ellman, Zool. 1861, p. 7470.
'Mehotatai,' 'Totoriwai,' of the natives.
Hab. South Island; Otago, N. Z.; Norfolk Island.

109. Notornis mantellii, Owen, Trans. Zool. Soc. iii. p. 377; Gould, B. of Austr. pl. ; Ellman, Zool. 1861, p. 7470.

---

* What is *Rallus australis,* var. A., Lath. Hist. x. p. 373?
Hab. Lord Howe's Island.

Is the "wingless bird on Lord Howe's Island," mentioned by Mr. Westwood at a meeting of the Linnean Society, and noticed in Jard. Contr. of Ornith. 1851, p. 10, as about the size of a Rail, the same species?

What is the *Dark Rail* (*Rallus tenebrosus,* Lath. MSS.), Lath. Hist. ix. p. 378?
Hab. Norfolk Island.

'Moho' of the natives of North Island.
'Takahe' of the natives of South Island.
Hab. Dusky Bay; Middle Island, N. Z.

110. PORPHYRIO MELANOTUS, Temm. Man. d'Orn. ii. p. 701; G. R. Gr. App. Dieff. N.Z. ii. p.197; Ellman, Zool. 1861, p. 7471.
'Pukeko,' 'Pakura,' of the natives.
Hab. Mataineka, South Island, N. Z.

111. PORPHYRIO ALBA, Temm.
Fulica alba, White's Journ. App. pl. p. 238; Phill. Bot. Bay, pl. p. 273; Callam, Bot. Bay, 1783.
Gallinula alba, Lath. Ind. Orn. ii. p. 768.
Porphyrio melanotus (*albino,* var.), G. R. Gr. Voy. Ereb. & Terr. Birds, p. 14.
Porphyrio melanotus, var., Pr. B.
Notornis ? *alba,* v. Pelz. Sitz. Acad. d. Wiss. Wien, xli. p. 331.
Hab. Norfolk Island and other places.

Entirely white; but some differ in having bright blue between the shoulders, and spotted on the back with the same.

In Vienna Museum, from the Leverian Museum.

It is stated that a similar bird was found on Lord Howe's Island, which was incapable of flight. The wings of the male were beautifully mottled with blue.

The young are said to be black; then they become bluish grey, and afterwards pure white (Lath. Gen. Hist. ix. p. 428).*

DINORNITHIDÆ?

112. DINORNIS —— ?
Dinornis —— ?
'Po-waka-i' of the natives. (10 feet high.)
Hab. Probably living among the wild unexplored mountain-ranges of the Middle Island, N. Z. (*Ellman,* Zool. 1861, p. 7468).

ANATIDÆ.

113. CASARCA VARIEGATA, G. R. Gr. App. Dieff. N. Z. ii. p. 198; Voy. Ereb. & Terr. Birds, p. 15. pl. 16.

---

* What is the "*Coot*" of Lord Howe's Island, Phill. Voy. Bot. Bay, p. 226?

Variegated Goose, Lath. Gen. Syn. vi. p. 441.
Anas variegata, Gmel. S. N. i. p. 505.
Anas cheneros, Forst. Descr. An. p. 92; Icon. ined. 67.
Casarca castanea, Eyton, Monogr. Anat. pl. p. 108.
Anser variegata, Ellman, Zool. 1861, p. 7471.
'Pooa dugghie dugghie,' 'Tutangi tangi,' 'Putakitaki,' of the natives.
Hab. Dusky Bay; Mataineka, South Island; North Island, N. Z.

114. Anas superciliosa, Gmel. S. N. i. p. 537; G. R. Gr. App. Dieff. N. Z. ii. p. 198; Ellman, Zool. 1861, p. 7471.
Supercilious Duck, Lath. Gen. Syn. vi. p. 497.
Anas leucophrys, Forst. Descr. An. p. 93; Icon. ined. 77.
'He parrera,' 'Parera,' 'Tahora,' of the natives.
Hab. Dusky Bay; Queen Charlotte's Sound, N.Z.; Chatham, Campbell's, and Norfolk Islands.*

115. Anas chlorotis, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 15. pl. 20.
'Pateka' of the natives.
Hab. New Zealand.

116. Spatula variegata, Gould, P. Z. S. 1856, p. 95; B. of Austr. Suppl. pt. iii.
Spatula rhynchotis, G. R. Gr. App. Dieff. N. Z. ii. p. 198; Voy. Ereb. & Terr. Birds, p. 15.
Anas rhynchotis, Ellman, Zool. 1861, p. 7471.
'Kukupaki,' 'Pikau-kuku,' 'Rangi-tau-haruru,' of the natives.
Hab. Mataineka, South Island, N. Z.

117. Hymenolaimus malacorhynchus, G. R. Gr. Ann. Nat. Hist. 1843, p. 370; G. R. Gr. et Mitch. Gen. of B. iii. pl. 168.
Soft-billed Duck, Lath. Gen. Syn. vi. p. 522.
Anas malacorhynchos, Gmel. S. N. i. p. 526; Ellman, Zool. 1861, p. 7471.

---

* What is *Anas fusca* (*Teal*), Ellman, Zool. 1861, p. 7471?
'Tetewai' of the natives.
What is *Anas mediterranea* (*Mountain Teal*), Ellm. Zool. 1861, p. 7471?
'Parera' of the natives.

Malacorhynchus forsterorum, Wagl. Isis, 1832, p. 1235; G. R. Gr. App. Dieff. N. Z. ii. p. 198.

Malacorhynchus membranaceus ♂, Eyton, Monogr. Anat. p. 136.

'Whiho,' 'He-wee-go,' of the natives.

Hab. Dusky Bay, South Island; Waikowaiti, N. Z.

118. FULIGULA NOVÆ ZEALANDIÆ, Steph. Gen. Zool. xiii. p. 123; G. R. Gr. App. Dieff. N. Z. ii. p. 198.

New Zealand Duck, Lath. Gen. Syn. vi. p. 543.

Anas novæ zealandiæ, Gmel. S. N. i. p. 541.

Anas atricilla, Forst. Descr. An. p. 95; Icon. ined. 79.

Anas atra, Ellman, Zool. 1861, p. 7471?

'He patek,' 'Repo,' 'Papango,' of the natives.

Hab. Dusky Bay, South Island, N. Z.

119. NESONETTA AUCKLANDICA, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 16. pl. 17.

Hab. Auckland Island.

120. MERGUS AUSTRALIS, Hombr. & Jacq. Ann. des Sci. Nat. 1841, p. 320; Voy. au Pôle Sud, Ois. t. 31. f. 2.

Hab. Auckland Island.

COLYMBIDÆ.

121. PODICEPS RUFIPECTUS, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 17. pl. 19; Ellman, Zool. 1861, p. 7471.

Podiceps (*Poliocephalus*) *rufipectus,* G. R. Gr. App. Dieff. N. Z. ii. p. 198.

'Totokipio,' 'Weiweia,' of the natives.

Hab. Tairi, South Island, N. Z.*

ALCIDÆ.

122. APTENODYTES PENNANTII, G. R. Gr. Ann. of Nat. Hist. 1844, p. 315.

Patagonian Penguin, Penn. Phil. Trans. lviii. pl. .

Pinguinaria patachonica, Shaw, Nat. Misc. pl. 409.

King Penguin, Ellman, Zool. 1861, p. 7472.

Hairy Penguin, juv., Lath. Hist.

Hab. Stewart's Island.

---

* What is the *Crested Grebe,* Ellman, Zool. 1861, p. 7472?

123. Spheniscus minor, G. R. Gr. App. Dieff. N. Z. ii. p. 199, et Voy. Ereb. & Terr. Birds, p. 16; Ellman, Zool. 1861, p. 7472.
Little Penguin, Lath. Gen. Syn. vi. p. 572. pl. 103.
Aptenodytes minor, G. Forst. Comm. Götting. iii. p. 147; Descr. An. p. 101; Icon. ined. 84, 85.
Eudyptula minor, Pr. B. Compt. Rend. 1856, p. 775.
Chrysocoma minor, Steph.
Catarrhactes minor, Cuv.
'Korora' of the natives.
Hab. Dusky Bay, South Island, N. Z.

124. Eudyptes pachyrhynchus, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 17; G. R. Gr. & Mitch. Gen. of B. iii. p. 641. pl. 176.
Chrysocoma pachyrhynchus, Br. B. Compt. Rend. 1856, p. .
'Tauake' of the natives.
Hab. Waikowaiti, N. Z.

125. Eudyptes antipodes, G. R. Gr. App. Dieff. N. Z. ii. p. 199; Ellman, Zool. 1861, p. 7472.
Catarrhactes antipodes, Hombr. & Jacq. Ann. des Sci. Nat. 1841, p. .
Aptenodytes flavilarvata, Peale, Expl. Exped. viii. p. 260.
Pygoscelis antipodes, Hombr. & Jacq. Voy. au Pôle Sud, i. p. 156. t. 33. f. 2.
'Korara,' 'Ho-i-ho,' of the natives.
Hab. Middle Island, N. Z.; Auckland and Chatham Islands.

126. Pygoscelis wagleri, Sclat.
Aptenodytes papua, Forst. Comm. Gött. iii. p. 113. t. 3.
Aptenodyta papua, Scop. Sonn. Voy. t. 115.
Pygoscelis papua, Wagl.
Hab. Macquarie's Island.

PROCELLARIDÆ.

127. Pelecanoïdes urinatrix, G. R. Gr. App. Dieff. N. Z. ii. p. 199.
Diving Petrel, Lath. Gen. Syn. vi. p. 413.

Procellaria urinatrix, Gmel. S. N. i. p. 560.
Procellaria tridactyla, Forst. Descr. An. p. 149; Ellman, Zool. 1861, p. 7473.
Haladroma urinatrix, Ill. Prod. p. 274.
Puffinuria garnotii, Less. Voy. Coqu. Zool. pl. 46.
Puffinuria urinatrix, Gould, B. of Austr. vii. pl. 60.
'Teetee,' 'Titi,' of the natives.
Hab. Queen Charlotte's Sound, N. Z.; Auckland Island.

128. PUFFINUS TRISTIS, Forst. Descr. An. p. 205.
Procellaria grisea, Forst. Icon. 94, nec Gmel.
Puffinus major, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 17.
Puffinus fuliginosus, Hombr. & Jacq. Voy. au Pôle Sud, t. 32. f. 7, nec Strickl.
Puffinus cinereus, A. Smith. Ill. Zool. Afr. pl. 56.
Puffinus gama, Pr. B.
Hab. Auckland Island.*

129. PUFFINUS CHLORORHYNCHUS, Less. Tr. d'Orn. p. 613; v. Pelz. Sitz. Acad. d. Wiss. Wien, xli. p. 331.
Puffinus sphenurus, Gould, B. of Austr. vii. pl. 58.
Hab. Norfolk Island (*v. Pelz.*).

130. PUFFINUS ASSIMILIS, Gould, B. of Austr. vii. pl. 59.
Nectrix nugax, Soland. MSS.
Puffinus australis, Eyton.
'Mutton-bird' of the colonists.
Hab. N.E. of New Zealand; Norfolk Island; Lord Howe's Island.

131. THALASSIDROMA MARINA, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 17.
Procellaria marina, Linn.?
Procellaria marina, Lath. Ind. Orn. ii. p. 826.
Procellaria æquorea, Soland. MSS.; Banks, Icon. ined. 13.
Procellaria hypoleuca, Webb. & Berth.?
Pelagodroma marina, Reichenb.
Pelagodroma fregetta, Pr. B. Compt. Rend. 1856, p. 769.
Hab. Auckland Island.

---

* What is the *Ash-coloured Petrel,* Ellman, Zool. 1861, p. 7473?

132. THALASSIDROMA MELANOGASTER, Gould, B. of Austr. vii. pl. 62; Benn. Gath. of a Nat. p. 240.
Procellaria fregata, var., Soland. MSS.
Procellaria grallaria, Licht. Cat. Dupl. no. 764.
Procellaria oceanica, Pr. B.
Thalassidroma grallaria, G. R. Gr. Gen. of B. iii. p. 648.
Fregetta melanogastra, Pr. B. Consp. Av. ii. p. 198.
Hab. Phillip's, Norfolk, and Nepean Islands.

133. THALASSIDROMA NEREIS, Gould, P.Z.S. 1840, p. 178, et B. of Austr. vii. pl. 64; Benn. Gath. of a Nat. p. 240.
Procellaria nereis, Pr. B. Compt. Rend. xlii. p. 769.
Hab. Phillip's, Norfolk, and Nepean Islands.

134. PROCELLARIA GIGANTEA, Gmel. S. N. i. p. 563; G. R. Gr. App. Dieff. N. Z. ii. p. 199.
Procellaria ossifraga, Forst. Descr. An. p. 343; Icon. ined. 93 *a*.
Ossifraga gigantea, Hombr. & Jacq.
Hab. Cook's Straits, N. Z.

135. PROCELLARIA ÆQUINOCTIALIS, Linn. S. N. i. p. 213; Ellman, Zool. 1861, p. 7473.
Puffinus æquinoctialis, Steph. Gen. Zool. xiii. p. 229; G. R. Gr. App. Dieff. N. Z. ii. p. 199.
Majaqueus æquinoctialis, Reichenb.
Fuliginous Petrel, White, Journ. pl. p. 252.
'Oi,' 'Takupu,' of the natives.
Hab. New Zealand.

136. PROCELLARIA PARKINSONI, G. R. Gr.
Procellaria fuliginosa, Banks, Icon. 19.
Puffinus æquinoctialis, pt., G. R. Gr. List of Anseres B. M. p. 160.
'Taiko' of the natives.
Hab. New Zealand (*Miss R. Stone*).

This species differs from the *Procellaria æquinoctialis* in being smaller in all its proportions; the bill is nearly one-third less than that of *P. æquinoctialis*; the body is sooty black throughout, being without the white on the mentum; the tips of the mandibles are inclined to black.

137. Procellaria atlantica, Gould, Ann. N. H. xiii. p. 362; v. Pelz. Sitz. Acad. d. Wiss. Wien, xli. p. 331.
Procellaria fuliginosa, Forst. Descr. An. p. 22; Icon. ined. 93 *b.*
Procellaria grisea, Kuhl, Monogr. sp. 15 (nec Gmel.).
Petrodroma fuliginosus, Pr. B. Compt. Rend. xlii. p. 768.
Hab. Norfolk Island (*v. Pelz.*).*

138. Procellaria glacialoïdes, A. Smith, Zool. S. Afr. Birds, pl. 51; Gould, B. of Austr. vii. pl. 48; Forst. Icon. ined. 91.
Thalassoica glacialoides, Pr. B. Compt. Rend. xlii. p. 768.
Priocella garnoti, Hombr. & Jacq. Voy. au Pôle Sud, t. 32. f. 43.
Hab. New Zealand.

139. Procellaria phillipii, G. R. Gr.
Norfolk-Island Petrel, Phill. Bot. Bay, pl. p. 161.
Procellaria alba, var., Lath. Ind. Orn. ii. p. 822.
Procellaria mollis, Gould?
Hab. Norfolk Island.

140. Procellaria capensis, Gmel. S. N. i. p. 565.
Daption capensis, Steph. Gen. Zool. xiii. p. 239.
Procellaria punctata (*Cape Pigeon*), Ellman, Zool. 1861, p. 7473.
Hab. New Zealand (*Forst.*).

141. Procellaria cookii, G. R. Gr. App. Dieff. N. Z. ii. p. 199; Voy. Ereb. & Terr. Birds, pl. 35.
Rhantistes cooki, Pr. B. Compt. Rend. xlii. p. 768.
Cookilaria leucoptera, (Gould) Pr. B. Compt. Rend. 1856.
'E-titi,' 'Titi,' of the natives.
Hab. New Zealand.

142. Procellaria gavia, Forst. Descr. An. p. 140; G. R. Gr. Voy. Ereb. & Terr. Birds, p. 18.
Hab. Queen Charlotte's Sound, N. Z.

---

* What is the *Grey-headed Black Petrel,* Ellman, Zool. 1861, p. 7473?

143. Procellaria ariel, Gould, Ann. N. H. xiii. p. 366.
Procellaria brevirostris, Gould (juv.?).
Hab. Cook's Straits, N. Z.

144. Procellaria cærulea, Gmel. S. N. i. p. 560.
Procellaria similis, Forst. Descr. An. p. 59; Icon. ined. 86.
Procellaria forsteri, A. Smith, Zool. S. Afr. Birds, pl. 54.
Halobæna cærulea, I. Geoffr.; Pr. B. Compt. Rend. xlii. p. 768.
Hab. North-east coast of New Zealand.

145. Prion vittatus, Cuv.; G.R.Gr. App. Dieff. N.Z. ii. p. 200.
Broad-billed Petrel, Lath. Gen. Syn. vi. p. 411.
Procellaria vittata, Gmel. S. N. i. p. 560.
Procellaria forsteri, Lath. Ind. Orn. ii. p. 827.
Procellaria latirostris, Bonn. Enc. Méth.
Procellaria vittata, Forst. Descr. An. p. 21; Icon. ined. 87.
Pachyptila vittata, Ill. Prod. p. 274.
Prion forsteri, Steph. Gen. Zool. xiii. p. 251.
'*Whale Bird*,' Ellman, Zool. 1861, p. 7473.
Hab. Dusky Bay, N. Z.

146. Prion banksii, G. R. Gr. List of Anseres B. M. p. 165.
Pachyptila banksii, A. Smith, Zool. S. Afr. Birds, pl. 55.
Hab. Auckland Island.

147. Diomedea exulans, Linn. S. N. i. p. 214; Forst. Icon. ined. 99, et Descr. An. p. 29.
Procellaria ——? (*Great White Albatros*), Ellman, Zool. 1861, p. 7473.
'Toroa' of the natives.
Hab. New Zealand.

148. Diomedea fuliginosa, Gmel. S. N. i. p. 568?
Procellaria ——? (*Brown Albatros*), Ellman, Zool. 1861, p. 7473.
'Toroa pango' of the natives.
Hab. New Zealand.

Laridæ.

149. Lestris antarcticus, Less. Tr. d'Orn. p. 616; G. R. Gr. App. Dieff. N. Z. ii. p. 200.

Lestris catarractes, Quoy & Gaim. Voy. l'Uranie, Ois. t. 38; Gould, B. of Austr. vii. pl. 21.

Catarracta antarctica, Pr. B. Compt. Rend. xlii. p. 770.

Stercorarius antarcticus, G. R. Gr. Gen. of B. iii. p. 653.

Lestris fuscus, Ellman, Zool. 1861, p. 7472.

Hab. Campbell Island; Norfolk Island; Macaulay's Island.

150. LARUS ANTIPODUM, G. R. Gr. List of Anseres B. M. p. 169.

Larus dominicanus, (Licbt.) G. R. Gr. Voy. Ereb. & Terr. Birds, p. 18.

Dominicanus antipodum, Bruch, Cab. Journ. für Ornith. 1853, p. 100.

Clupeilarus antipodum, Pr. B. Compt. Rend. 1856, p. 770.

Larus littoralis, Forst.

Lestris antarcticus, Ellman, Zool. 1861, p. 7473.

'Karoro' of the natives.

Hab. Mount Egmont, N. Z.; Auckland Island.

151. LARUS SCOPULINUS, Forst. Descr. An. p. 106, et Icon. ined. 109; G. R. Gr. App. Dieff. N. Z. ii. p. 200.

Larus novæ hollandiæ, (Gmel.) G. R. Gr. Voy. Ereb. & Terr. Birds, p. 18.

Bruchigavia jamesoni, pt., Pr. B. Consp. Av. ii. p. 228.

Gavia andersoni, Bruch, Cab. Journ. für Ornith. 1853, p. 102. t. 2. f. 27.

Gelastes andersoni, Pr. B. Cab. Naumannia, 1854, p. 212.

Lestris scopulinus, Ellman, Zool. 1861, p. 7472.

'Piapuka,' 'He talle,' 'Tara punga,' of the natives.

Hab. Dusky Bay, South Island; Mount Egmout, N. Z.; Auckland Island.

152. LARUS SCHIMPERI, Pr. B. Consp. Av. ii. p. 229.

Chroicocephalus schimperi, Bruch, Cab. Journ. für Ornith. 1853, p. 104.

Hab. New Zealand.

153. STERNA (SYLOCHELIDON) STRENUUS, Gould, P. Z. S. 1846, p. 21; B. of Austr. vii. pl. 22.

Sterna major, Ellman, Zool. 1861, p. 7472.

Sylochelidon strenua, Pr. B. Compt. Rend. xlii. p. 772.
Hab. New Zealand (*Sclat.*).

154. STERNA POLIOCERCA, Gould, P. Z. S. 1837, p. 26.
Sylochelidon poliocerca, G. R. Gr. List of Anseres B. M. p. 175.
Thalasseus poliocercus, Gould, B. of Austr. vii. pl. 24; Benn. Gath. of a Nat. p. 241.
Pelecanopus poliocercus, Pr. B. Compt. Rend. xlii. p. 772.
Sterna rectirostris, Peale, Expl. Exped. viii. p. 281.
Hab. Black Rock, off Norfolk Island.

155. STERNA FRONTALIS, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 19. pl. 20*.
Sterna striata, Gmel. S. N. i. p. 609, juv.?; G. R. Gr. App. Dieff. N. Z. ii. p. 200.
Sterna albifrons, Peale, Expl. Exped. viii. p. 279.
Hab. New Zealand.

156. STERNA ANTARCTICA, Forst. Descr. An. p. 107; Wagl. Isis, 1832, p. 1223.
Sternula? antarctica, Pr. B. Compt. Rend. xlii. p. 773.
Hab. Queen Charlotte's Sound, N. Z.†

157. GYGIS CANDIDA, Wagl.; Gould, B. of Austr. vii. pl. 30.
White Tern, Lath. Gen. Syn. vi. p. 363.
Sterna alba, Gmel. S. N. i. p. 607.
Sterna candida, Gmel. S. N. i. p. 607.
Hab. Norfolk Island.

158. HYDROCHELIDON ALBOSTRIATA, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 19. pl. 21; Ellis, Icon. ined. (1776) 54.
'Tarapiroe' of the natives.
Hab. Waikouaiti, N. Z.

159. ANOÜS STOLIDUS, G. R. Gr. List of Gen. of B. 1841, p. 100; Gould, B. of Austr. vii. pl. 34.
Sterna stolida, Linn. S. N. i. p. 227.
Anoüs niger, Steph. Gen. Zool. xiii. p. 140.
Megalopterus stolidus, Peale, Expl. Exped. 1848.
Hab. New Zealand.

† What is *Sterna vulgaris,* Ellman, Zool. 1861, p. 7472? 'Tara nui' of the natives. "Like English species. Beak and legs red." (? *Sterna gracilis.*)

160. ANOÜS LEUCOCAPILLUS, Gould, B. of Austr. vii. pl. 36.
Sterna tenuirostris, Benn. Gath. of a Nat. p. 241.
Hab. Norfolk and Nepean Islands.

161. ANOÜS CINEREUS, Gould, P. Z. S. 1845, p. 104, et B. of Austr. viii. pl. 37; Benn. Gath. of a Nat. p. 241.
Procelsterna albivitta, Pr. B. Compt. Rend. xlii. p. .
Hab. Norfolk and Nepean Islands.*

PELECANIDÆ.

162. PHAËTON RUBRICAUDA, Bodd. Tabl. d. Pl. Enl. p. 57.
Phaëton phœnicurus, Gmel. S. N. i. p. 583; Gould, B. of Austr. vii. pl. 73.
Phaëton erubescens, Banks, Icon. ined. 31.
Phœnicurus rubricauda, Pr. B. Consp. ii. p. 183.
Hab. Norfolk and Nepean Islands.

163. SULA SERRATOR, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 19.
Pelecanus serrator, Banks, Icon. ined. 30.
Sula australis, Gould, P. Z. S. 1840, p. 177; G. R. Gr. App. Dieff. N. Z. ii. p. 200; Ellman, Zool. 1861, p. 7472.
Sula cyanops, Sundev.
'Tara,' 'Taiko,' 'Takapu,' of the natives.
Hab. Queen Charlotte's Sound, N. Z.

164. SULA FIBER, G. R. Gr. List of Anseres B. M. p. 183.
Pelecanus fiber, Linn. S. N. i. p. 218.
Pelecanus sula, Linn. S. N. i. p. 218.
Dysporus fiber, Ill. Prod.
Pelecanus plotus, Forst. Descr. An. p. 278; Icon. ined. 108.
Sula fusca, Gould, B. of Austr. vii. pl. 78.
Hab. Enderby's Island; Lord Howe's Island?

165. SULA PISCATOR, Gould, B. of Austr. vii. pl. 79.
Pelecanus piscator, Linn. S. N. i. p. 217.

---

* What is *Sterna atripes,* Ellman, Zool. 1861, p. 7473? 'Tara nui' of the natives. "Beak and legs black." (? *St. melanauchen.*)

What is *Sterna parva,* Ellman, Zool. 1861, p. 7473? 'Tara paku' of the natives. One-half the size of Common Tern; plumage similar. (? *St. nereis.*)

What is *Sterna cinerea,* Ellman, Zool. 1861, p. 7473? 'Tara' of the natives. Not described.

Sula erythrorhyncha, Less. Tr. d'Orn. p. 601.
Sula rubripes, Gould, P. Z. S. 1837, p. 156.
Sula rubripeda, Peale, Expl. Exped. p. 274.
Hab. New Zealand.*

166. GRACULUS CARBOÏDES, G. R. Gr. App. Dieff. N. Z. ii. p. 201.
Phalacocrorax carboides, Gould, P. Z. S. 1837, p. 156.
Pelecanus novæ hollandiæ, Steph.
Pelecanus flavirostris, Ellman ?, p. 7472.
'Kauau tua whenua' of the natives.
Hab. New Zealand.

167. GRACULUS CIRRHATUS, G. R. Gr. App. Dieff. N. Z. ii. p. 201; Voy. Ereb. & Terr. Birds, p. 19.
Pelecanus cirrhatus, Gmel. S. N. i. p. 576.
Phalacrocorax imperialis, King.
Pelecanus caruncalatus, Gmel. S. N. i. p. 576; Forst. Descr. An. p. 102, et Icon. ined. 104.
Urile carunculatum, Bp. Consp. ii. p. 176.
Hab. Queen Charlotte's Sound, N. Z.

168. GRACULUS MELANOLEUCUS, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 20.
Phalacrocorax melanoleucus, Vieill. Nouv. Dict. d'H. N. viii. p. 88; Gould, B. of Austr. vii. pl. 70.
Pelecanus dimidiatus, Cuv.
Phalacrocorax flavirostris ?, Gould, P. Z. S. 1837, p. 157.
Graculus flavirostris, G. R. Gr. App. Dieff. N. Z. ii. p. 201.
Hab. New Zealand.

169. GRACULUS VARIUS, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 19; Dieff. App. N. Z. ii. p. 201.
Pelecanus pica, Forst. Descr. An. p. 104; Icon. ined. 136.
Pied Shag, Lath. Gen. Syn. vi. p. 605.
Pelecanus varius, Gmel. S. N. i. p. 575.
Phalacrocorax hypoleucus, Gould, B. of Austr. vii. pl. 68.
Phalacrocorax fucosus, Peale, Expl. Exped. viii. p. .
Hypoleucus varius, Reichenb.
Hab. Queen Charlotte's Sound; South Island, N. Z.

---

* Gannets are found on the rocks near Norfolk Island, Lord Howe's Island, and Macaulay's Island. See also *anteà,* p. 99.

170. GRACULUS PUNCTATUS, G.R.Gr.App. Dieff. N.Z. ii. p. 201.
Spotted Shag, Lath. Gen. Syn. vi. p. 602.
Pelecanus punctatus, Sparrm. Mus. Carls. t. 10.
Pelecanus nævius, Gmel. S. N. i. p. 575.
Phalacrocorax dilophus, Vieill.
Stictocarbo punctatus, Pr. B. Consp. ii. p. 174.
Phalacrocorax punctatus, Steph. Gen. Zool. xiii. p. 88.
Phalacrocorax nævius, Cuv. Règ. An. p. 565.
'Pa-degga-degga' of the natives.
Hab. Queen Charlotte's Souud; Cook's Straits, N. Z.

171. GRACULUS BREVIROSTRIS, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 20.
Phalacrocorax brevirostris, Gould, P. Z. S. 1837, p. 26.
Carbo flavigula, Peale.
Haliæus brevirostris, Pr. B. Consp. ii. p. 178.
Hab. Bay of Islands, N. Z.

172. GRACULUS CHALCONOTUS, G. R. Gr. Voy. Ereb. & Terr. Birds, p. 20. pl. 21.*
Carbo auritus, Less. Tr. d'Orn. p. 665 ?
Graculus auritus, G. R. Gr. App. Dieff. N. Z. ii. p. 201.
Phalacrocorax glaucus, Hombr. & Jacq. Voy. au Pôle Sud, Ois. t. 31. f. 1.
Graculus glaucus, Pr. B. Consp. ii. p. 171.
'Mapua,' 'Parekareka ?' of the natives.
Hab. Otago, South Island, N. Z.

173. GRACULUS STICTOCEPHALUS.
Carbo sulcirostris, (Brandt) Gould, B. of Austr. vii. pl. 67.
Phalacrocorax purpureigula, Peale.
Microcarbo stictocephalus, Pr. B. Consp. Av. ii. p. 178.
Hab. New Zealand.

---

* What is *Pelecanus major* (*Great Green Cormorant*), Ellman, Zool. 1861, p. 7472? 'Kauau mu' of the natives.

What is *Pelecanus carboides* (*Little Black Cormorant*), Ellman, Zool. 1861, p. 7472? 'Kauau pango' of the natives.

What are the 'Guinea-bir ' and 'Guava-bird' of Norfolk Island, referred to by Downing in Proc. Roy. Soc. Tasmania?

XXVII.—*Ornithological Ramble in Foochow, in December* 1861.

By Robert Swinhoe, Corr. Mem. Zool. Soc. Lond.

Those who are bound for Foochow, as was my case in December last, leave the steamer near the mouth of the Min river, where a boat waits for the mail and passengers. The sail is soon hoisted, and, with the help of six oars plied by six brawny natives (standing and pushing at them, as is the usual mode in this province, instead of the custom of sitting and pulling which prevails in most other places), we rattle along; the haze-capped hills protruding in bolder relief, and by their gradual convergence marking the inland course of the noble Min—a fine stream, no doubt, but tortuous, and not without its hidden dangers, which, thanks to the exertions of the consular and naval authorities, are fast being buoyed and beaconed. Owing to the troubles at Canton, Foochow has of late years become a great mart for teas; and fine clipper ships, freighted with immensely valuable cargoes of that commodity, periodically wend down the river, homeward bound. Disasters annually occur, causing fearful loss to the insurers; and will still continue to occur, in spite of the beacons, until the underwriters have the foresight to advance a little capital and supply tug-steamers for the purpose of escorting these vessels beyond all the treacheries of a capricious stream. The discussion of this question, however, we must leave to those more intimately concerned; our readers in 'The Ibis' will scarcely be pleased with us for treating them with the mercantile. Let us drop the consul then for the present, and assume the naturalist. The flowing tide, useful for the purpose of carrying us the faster up stream, is not so well adapted for watching the habits of the winter wildfowl which resort to the muddy flats and margins to feed at the first commencement of the ebb. But still, though not just now engaged in supplying exhausted nature, the sleek-plumed visitors are numerous enough, floating lazily on the water, preening their feathers, or sunning themselves with expanded wing and leg on the rocks and sandy beach. *Anser segetum* is the chief Goose, and its flights appear to exceed all calculation. The noise of our boat is too much for their suspicious ears, and stretching their necks with a loud cackling, up they rise, and wheeling in long circles at length betake themselves further seaward. They do well to shun the approach of the white man, poor birds! for Colonel Hawker's murderous fowl-artillery is in possession of certain sporting residents at this port, and no less than thirteen of their brethren have gasped in death-pang from one fatal discharge. *Anser ferus* and *A. hyperboreus* also visit these waters, as well as a few Swans (*Cygnus minor*), both in mature and immature plumage, in January and February, when the cold season has reached its climax. *C. musicus* is said by Schlegel and Von Schrenck to be found in Japan and North China, and it is not impossible that a few of these are also included by sportsmen in the general term of *Swans.* What are those four white birds we see paddling gracefully away from us? They are too tame to be Swans. Yes, their long-pouched bills betray them; they are Pelicans—*Pelecanus crispus.* Different from most others of the feathered visitants of winter, these are not northern birds, but frequent the inland lakes and rivers, whence the freezing of their watery haunts drives them to seek subsistence in streams communicating with the sea. The Ducks about us are chiefly *Fuligula marila* and *F. cristata,* sitting like scattered dots over the surface of the water, with occasional parties of Sheldrakes, *Tadorna vulpanser* and *T. rutila*; but the latter is scarce near the sea, its habits leading it mostly to prefer fresh water. The Curlews are strutting about the mud, ever on the look-out to take wing at the approach of a boat, while certain smaller, sprightlier birds wading about among them—the first to give warning—are off already, with their shrill "*teo-teo.*" The wretched little telltales we recognize at once to be *Totanus glottis.* Of the other Sandpipers, *T. stagnatilis, T. calidris,* and *T. fuscus* appear to be rarer and more locally distributed, as also is *T. pulverulentus.* *T. ochropus* prefers generally the margins of inland waters, in company with the Golden Plover (*Charadrius virginicus*), where the Teal, Pintail, *Anas falcaria, A. clypeata,* and *A. boschas* also seek shelter from the cold sea-blasts. The cloud of small birds that rise with one accord—so unanimous in their evolutions, at times showing their white bellies like large flocks of falling snow, and at others becoming almost invisible as their grey backs are turned with simultaneous uniformity—are the Snippits (so called), the constant winter residents of the Southern Chinese coast. They are usually considered to be the *Tringa subarcuata*, though, from the black-bellied garb they assume in summer, I take them to be a different species, perhaps entitled to Gray's name *T. chinensis*. *T. platyrhyncha*, *T. minuta*, *T. subminuta*, and *T. alpina* are earlier in their migrations, and are seen on the coast in September, chiefly on their way to more southerly regions, to pass up again in March or the commencement of April. They are often found in those months by inland salt-marshes, in company with the Great Snipe (*Gallinago megala*, nobis), which also winds more southwards to hibernate. *Tringa temminckii*, on the contrary, remains all the winter with us, on the banks of inland pools or fallow paddy-fields, solitary or in small parties, and often in company with *Ægialites philippina*. The congener of this last, however, *Æ. cantiana*, is a mudlarker on the shores of the salt seas, and we of course notice abundant flocks of this species on the banks and flats of this river. Numbers of them spend the summer here, resorting, for the purpose of breeding, to sandy coves among secluded islands. At the hottest time of the year their nuptial tints become much faded, and their whole plumage undergoes such severe abrasion that some specimens present almost the appearance of albinos. *Æ. leschenaultii* is sometimes shot out of parties of the foregoing, but is rare and very locally distributed on the Chinese coast, though pretty common on the large sand-flats in Formosa. No signs here of *Strepsilas interpres*! He made his hurried transit southwards long ago; and *Avocetta*, *Platalea*, *Hæmatopus*, and *Lobipes*, in their migratory movements, depend too much on the freaks of a changeable winter to find them now on this mild December morning.

Our boatmen shout and stamp more loudly, and by vigorous exertion accelerate our advance. The hills grow nearer, and a sudden sweep brings us round in view of the "Pagoda anchorage." One steamer and a few ships are anchored in this small basin, while a bungalow or two, owned by storekeepers, huddled cozily on the sides of a green island topped by a pagoda, mark the resort of those that go down to the sea in ships. We rapidly pass on. Sturdy fellows are these boatmen—nearly naked, in spite of the fresh-blowing breeze that drives us shivering into the cabin. Their well-turned limbs and straight eyes give them a nobler look than Southern Chinese usually possess; but their hairless cheeks, the plaited tail wound round their bald pates, their yellow tint, and, above all, their loud-toned, varied jargon betray them natives of the Celestial Empire. They are, nevertheless, goodnatured, and seem anxious to drive the boat ahead. Standing to their oars, they swing the right leg forwards and stamp in concert, and join vociferously in chorus to the same continued boat-song. Far from showing signs of fatigue, their exertions get more furious, and their stamps and shouts louder, when any other boat tries to pass us. The high hills on each side look fresh and green, with their clayey sides scattered with huge black boulders of granite. Their formation is much the same as that of those at Amoy; but the abundance of fir-trees and coarse grass that partly cover their nakedness is quite refreshing, and forms a striking contrast to the general hoary aspect of Amoy. Some have compared the views on this river to those on the Rhine; but, it strikes me, the comparison is rather far-fetched. The black granite has its charms, nevertheless, at least to the builders so largely employed since the accumulation of white men at the town; and the quarriers are ever at work, clearing the rock with sledge and wedge, and sliding the masses down the faces of the hills. As regards the social advancement of the little community at Foochow, as also their progress in architectural skill, the church, built entirely of solid granite, bears proud testimony. The towering hill of Kooshan now appears on our right, boasting a height of 3000 feet, with its far-famed monastery of 70 priests, built in a recess on its undulating side at a height of 2000 feet. The large concourse of boats of all shapes and sizes, and the increasing accumulation of houses, show that the city cannot be far distant. At last we see it—a narrow bridge spanning the rapid river, its expanse sustained by numerous buttresses, and broken by a small island near the southern bank. What a stream of passengers are crossing to and fro, from the proud city to the Nantai side, whereon the roofs of foreign houses and factories appear most abundant! The boat stops at the Steam-Company's agent's wharf. The bustle of landing the mail and other goods takes place amidst loud cries and gesticulations, when we take our leave and repair up the hill to the pretty tier of government houses occupied by the consular establishment, and single out the residence of my esteemed friend, Mr. Holt. This gentleman, though rather addicted to the *otium cum dignitate* of civilized life, had not been entirely idle, but, assisted by a Chinese bird-stuffer supplied by me, had managed to get together a pretty decent collection of birds. The only novelty, however, was a *Pericrocotus* of very flammeous tints, which I had before seen from Java, and I think is described as *P. brevirostris* in Gould's 'Century.' This bird was bought from a child who was playing with it on a stick. I was pleased to find that a mercantile friend at Foochow was making some progress in the pursuit of ornithology. He possessed a copy of Morris's 'British Birds,' which he employed in identifying the Chinese species; but, like all tyros, he had marked most of the English birds as Chinese. I endeavoured to give him some hints on the subject, and I have great hopes of his usefulness in developing the ornithology of Foochow. He told me of some Black Woodpeckers he had seen in a tree close to his house, but that he had unfortunately not been able to procure a specimen. He assured me that they were not of the brown species allied to *Brachypternus badius* of Java, with which he was acquainted. This will therefore make the fourth species of the group found about Foochow. One curious bird, a stranger to me, was in his collection. It is a Wheatear, of a dusky plumage, mottled with white; and I take it to be the young of *Saxicola leucura,* which I see by 'Blyth's List' is also found in Upper Hindostan.

From the top of the Nantai Hill a fine view of the right and most interesting half of the valley of the Min is obtained—large tracts of cultivated paddy-land, divided here and there by green hills of modest undulation, which are ornamented with clumps of tall pines, banyans, and other umbrageous trees, and in places with bush and copse. In the distance, the high range that bounds the valley rises in varied tiers, surmounted oft with cone-shaped peaks, and oft with rude rounded bluffs. In the summer of 1857 I found the pine-groves abounding with numerous families of Gold-crests (*Reguloïdes proregulus*) and *Parus minor,* and frequented by occasional individuals of the handsome Grey Drongo (*Dicrurus* *cineraceus*), sitting in stately attitude, with decumbent forked tail, at the ends of the leafless boughs, or making short sweeps into the air and snapping at the passing insect. Now the lofty boughs of this Chinese emblem of longevity stoop to the awakening breeze, and no sound is heard among them save the occasional "*sweet*" of a solitary *Reguloïdes* or the shrieking scream of the Kites, which are pursuing each other and courting in their own clumsy manner preparatory to their early nidification. The mournful wail of Boreas through the bending branches is heard loudest of all. There is life yet, though, in the copsewood below; for, see! a party of lively winter arrivals are twittering and frisking about 'twixt the ground and the bushes. It is easy to observe that they are the common Bunting (*Emberiza personata*). Sparrows (*Passer montanus*) are as noisy as ever on the adjoining wall; and the little Sailor Bird (*Orthotomus phyllorapheus*) cheers up his mate with his well-known loud note, as the contented pair thread their way through the close bents of the long coarse grass. Surely that lively little brown bird I have met before! It looks like a Chat as it flits away, expanding its reddish tail. Ah yes, it is *Pratincola ferrea*, for there is its black-tinted male consort; another and another; surely, quite a party of them. They are late in their migrations. The paddy is all cleared away from the fields, and we must not therefore look for many birds in that direction. The large flights of the Yellow-head (*Buphus coromandus*) have long sped to the south, shorn of the yellow feathers that adorned their heads, which, like the deciduous leaves of autumn, fall when the glowing season of summer is past, to be renewed again soon as the sap-o'erflowing trees hail the arrival of spring with their show of sprouting leaflets. The banyans of the courtyards throughout the city—the scene of their love-making and noisy sparrings during the amorous season of nidification—are now deserted; and their congeners, the White Egret (*Herodias garzetta*), alone return at nightfall, in scattered and diminished parties, to roost and to long for the advent of the pleasant season. A few wandering *Ardeolæ* occasionally rise as the gunner plods wearily through the muddy fallows; but the handsome Black Heron (*Ardetta flavicollis*) and the little Chinese Heron (*A. sinensis*) never greet his eye. The Heron, the Night Heron, and *Ardetta cinnamomea* have all become scarce, the first having betaken himself for the time to the salt-fisheries, while the two last have turned wanderers and vagabonds over the face of the country. But the Snipes are here, though mostly to be met with in the wet, green patches of grass at the corners of fields. There they may be found mostly in wisps, but in this month generally singly. *Gallinago uniclava* is now commoner than the summer resident, *G. stenura,* which latter has a heavier and more direct flight. Woodcocks are rare in Foochow, but have been flushed once or twice among the hills. The Pheasant (*Phasianus torquatus*) is the chief bird here that incites the sportsman. It is found on the copse-covered hill-sides, but by no means so common as in the flat country about Shanghai. The Chinese nevertheless manage to get abundance of them, and may be seen nearly every day hawking them about the streets for 2*s.* a-piece. The hills also afford the Chinese Francolin (*Francolinus perlatus*) and the Bamboo Fowl—a species of *Arboricola* (I think, new, and which I have named temporarily *A. bambusæ*). Two other Partridges, one with *black* legs and the other with *feathered* legs, also occur; but as I have not yet seen them, I have no means of giving further notice of them.

As the gunboat 'Hardy,' that was to carry us to Tamsuy, in Formosa, grounded in her attempt to go down the river, we had a day at our disposal to ramble over the imposing hill, Kooshan. In crossing the basin between the bridge and the mountain, we were astonished to find the sand-spits so destitute of birds. A few Sandpipers (*Tringoïdes hypoleuca*) appeared to be the only representatives of the winter arrivals, fluttering and skimmering, with tremulous wing and merry note, in front of our boat, and alighting quite fearlessly a few yards off, where they continued their mud-probing pursuits, accompanied by frequent wagging of their posterior extremities. Some Wagtails were also running about close to the water's edge. I had the satisfaction of observing the three pied species noted before at Amoy. They are so similar, apparently, at first sight, that one feels disposed to rank them as varieties; but on deeper study of their relative characters and habits, each species is found to possess distinctive marks of its own, and to be governed by distinct laws of migration and distribution. *Motacilla luzoniensis* is the species perennially with us in more or less numbers, many retiring in summer south-eastwards to Formosa and the Philippines. *M. ocularis* (which Mr. Blyth identifies with *M. dukhunensis* of Sykes) visits our coast in winter, and returns westward to the interior provinces to breed. But *M. lugubris* evidently comes on its brumal migrations from North China and Japan; and Amoy, so far as I have yet observed, appears to be its most southerly limit, only a very few occurring there each winter. Whether these three, to me obviously *species*, may be considered mere climatal varieties, I leave to the superior learning of those who have more studied this question than myself. Certain it is that such species as *Yunx torquilla* and *Passer montanus* are not subject to any change, though found under very varied circumstances both of food and climate throughout the greater part of the old world. The distinctions that mark the difference among these three forms of the Pied Wagtail are certainly constant in all the specimens in different stages of their development that I have examined. *Motacilla boarula* never undergoes a change either in form or colour, and its distribution is extremely wide; whereas the *Budytes* group, as every ornithologist well knows, often puzzles the most discerning by its numerous congeneric forms. One species of this group visits this coast from the interior regularly every winter; and those in full moulted plumage that I have procured in spring are in every way undistinguishable from the true *Budytes flava* of Linnæus. In Formosa, however, another species appears with a *green* head in summer garb; and had it not *brown* cheeks, I should feel inclined to refer it to the form prevalent in the British Islands—*B. rayi.*

A flock of Grackles (*Acridotheres cristatellus*) are busy searching for small mollusks as the tide recedes; and interspersed among them are a few of the Parson Crow (*Corvus pectoralis*). The black species, *C. sinensis,* is also found in Foochow, and can at once be recognized by its peculiar "*caw,*" which much resembles in sound that of the large black species so abundant at Pekin (*C. japonensis*). A few of the Pied Grackle (*Gracupica nigricollis*) also occur at Foochow.

As we approach the flat ground at the base of the hill, we find the water divided into square fishing-beds, enclosed with close-set withered branches some 8 or 10 feet high. The tide overtops them and enables the fish to float into the enclosures, whence their egress at the recess of the water is rendered impossible by the barrier of branches, and they thus become an easy prey to the successful cunning of the fishermen. The tide is now low; and as we approach the high hedges of the enclosures, we naturally wonder how the boatmen will manage to land us. The helmsman gives a cheering shout, the men bend to their oars, and in a few seconds we have charged through the mass. We look round expecting to see a large gap, and to hear the execrations of the fishermen, who are paddling about not far from us; but no, the osiers have sprung back to their former position, and no gap is visible. A mile of paddy-field brings us to the first temple and gateway, leading up a broad stoneway to the hill monastery. At this entrance large banyans and pine-trees are clustered about in truly picturesque style, and the mixed notes from their numerous feathered inhabitants fill our bosoms with ornithological hopes. Even on the gate-porch several birds are sitting and enjoying themselves with noisy chatter. As we approach they take to the trees, and by their sweet blue plumage and long tail we cheerfully recognize the handsome *Urocissa sinensis.* Numbers of the Bispecular Jay (*Garrulus ornatus*) are here also, as noisy as usual. We observe *Turtur chinensis* and *T. gelastes* in abundance, and occasionally a late straggling couple of *T. humilis.* Other birds are also here in infinity, and among them we distinguish the *Ruticilla aurorea, Ianthia rufilata, Myiophonus cæruleus, Turdus daulias,* and *Enicurus speciosus;* but as we shall refer at the end of this article to the few worth recording that we procured, let us pass up the hill. The day was warm, and the ascent up the paved way very tedious; but the splendid view revealed at each of the three-stage lodges, each higher one giving a more extended view of the lovely vale beneath us, was extremely refreshing. The prospect over the valley, however, in the summer season is far more attractive, when the fields display one vast carpet of green waving rice, intersected by a labyrinth of streams connected with the river, which supply the agricultural system of the plain like so many silver arteries, the whole landscape being gilded to effulgence by the direct rays of nature's great regenerator. The hill-sides on either hand were almost entirely denuded of trees, and showed small signs of bird or human life. A few grass-cutters, mostly females, were the only bipeds. We met several parties of them, with their loads of grass, jogging down the hill, laughing and chatting to one another in happy mood. These peasant-women, though much browned by their constant outdoor life, are justly celebrated throughout China for their beauty of form and often of features. They trim their hair, in quaint but tasteful style, with large, bent silver skewers; and their nether limbs, not cramped and bandaged as customary among most Chinese women, are often symmetrically formed, and revealed to an extent that many of our fair countrywomen would think extremely indelicate. But the same ideas of decency do not obtain in all countries. We now pass up to the monastery.

Let Bhudda's votaries ascend this height to pay their homage to the Kooshan shrine, and gaze with awe upon the wondrous relics therein preserved! We love not Bhudda's faith nor Bhudda's lore; so our readers need not be afraid of our going into ecstasies at all the *mirabilia* that the monastery contains. But we cannot pass without mentioning one relic that is interesting to a naturalist, though in a different light from what it is to the enlightened worshippers of the mighty Fo. It is what the Chinese believe to be one of the molars of that once incarnate deity, bequeathed by him to certain beloved disciples in the West, when he was about to shuffle off this mortal coil and return to that nonentical existence to which all good Bhuddists aspire. By these worthy disciples it was deposited in this great monastery to be worshipped in awe, as a token of the great love their master bore mankind by deserting the bliss above to become flesh for their sakes. Suffice it to say that, if it actually did belong to Bhudda, that worthy must have entered flesh and inculcated his divine principles under the form of a *mammoth*; for there can be no doubt that it is a fossil tooth, and belonging to one of that series of Tertiary Mammals that Prof. Owen has introduced to the civilized world with so much learning and skill.

The monastery, with its numerous apartments and various ramifications, is all nestled in one group of handsome trees, the pines of which are of a gigantic size, and larger than any I have seen elsewhere in China. I was in great hopes of meeting here some of the Woodpecker family; but a breeze had now sprung up, and scarcely a bird was anywhere to be seen. A few Tree Pipits (*Anthus agilis*) occurred, and one Cuckoo (*Cuculus striatus*), the latter in young plumage, and probably a stray bird late in its southerly migration. As some of us were in a botanical mood, the rich-clad hill repaid our ramble; but in an ornithological point of view the higher spots were singularly deficient.

I subjoin some notes on a few birds procured in this ramble, of which I have not hitherto given notices from examples in the flesh.

Garrulus ornatus (*seu bispecularis*) ♂, Dec. 9, 1861.

Length 13½ inches; wing 7; tail 6, of 12 feathers. Bill deep neutral tint, with pale tip, and ochreous bases to both mandibles. Inside of mouth olive-black, with paler tongue. Iris pearly, with a deep-purple outer edge; skin encircling the eye light purplish brown, with a deep purple-black inner edge. Ear-covert larger than the eye, irregular oval, with the operculum slit perpendicularly through the middle. Legs and toes light ochreous flesh-colour, with light-brown claws.

Screeched harshly when wounded.

Dissection.—Heart ·8 by ·6 in. Liver, both lobes about 1 inch long; right rather lower down, and rounded at end. Each sterno-tracheal muscle divides on its way down the trachea, and ends at the peak in two lobes; the membrane between trachea and bronchi divided transversely by a thin pin-shaped cartilage ·3 long. Trachea gradually contracting downwards. Œsophagus with thin semitransparent parietes, dilatable to ·7. Proventriculus much granulated, ·6 long, thick, and gradually enlarging towards stomach. Gizzard nearly round, 1·3 long, 1·1 broad, and ·8 deep, with rather small roundish tendons, whence radiate strong muscles. Epithelium thick, ochreous, furrowed deeply in all directions, and filled with entire black seeds of some mountain berry, the soft parts of the same, large siliceous grits, and scanty remains of field-bugs. Intestine 21½ in. long, varying in thickness from ·15 to ·25. Cæca situate 1 in. from anus, ·4 long by about ·1 thick, the right one rather higher than the left.

I found the nest of this species, in the summer of 1857, at Foochow. It was placed on a thick lower bough of a high tree, right up against the trunk, and differed from that of *G. glandarius* in having a richer canopy. It contained four nearly fledged young.

Enicurus speciosus ♂, Dec. 9, 1861.

This bird appeared just as it was getting dusk, on the margin of a stream, wagging its deeply cleft tail, and looking much like a *Kittacincla.*

Length 10 inches; wing 4·21; tail 5·8, from tip to fork 3·4. Skin round eye bright purplish black. Iris deep hazel. Bill black; inside of mouth light orange-ochre, blackish on rictus, tip of tongue, roof, and inside of under mandible towards the tip. Ear-covert smaller than eye, roundish, perforated with a round aperture; skin of covert very white. Legs very pale flesh-colour, almost white; claws having a tinge of blackish. The shape of this bird's ear is in every respect similar to that of the *Myiophoni.*

Dissection.—Heart ·55 by ·4. Liver large: right lobe 1·2 long, entirely covering the intestines; left ·7. Œsophagus dilatable to ·3. Proventriculus ·4 long, at first expanding and then contracting. Gizzard somewhat heart-shaped, ·7 long, ·5 broad, and about ·3 deep. Epithelium thick, leathery, longitudinally furrowed, ochreous, containing remains of small insects.

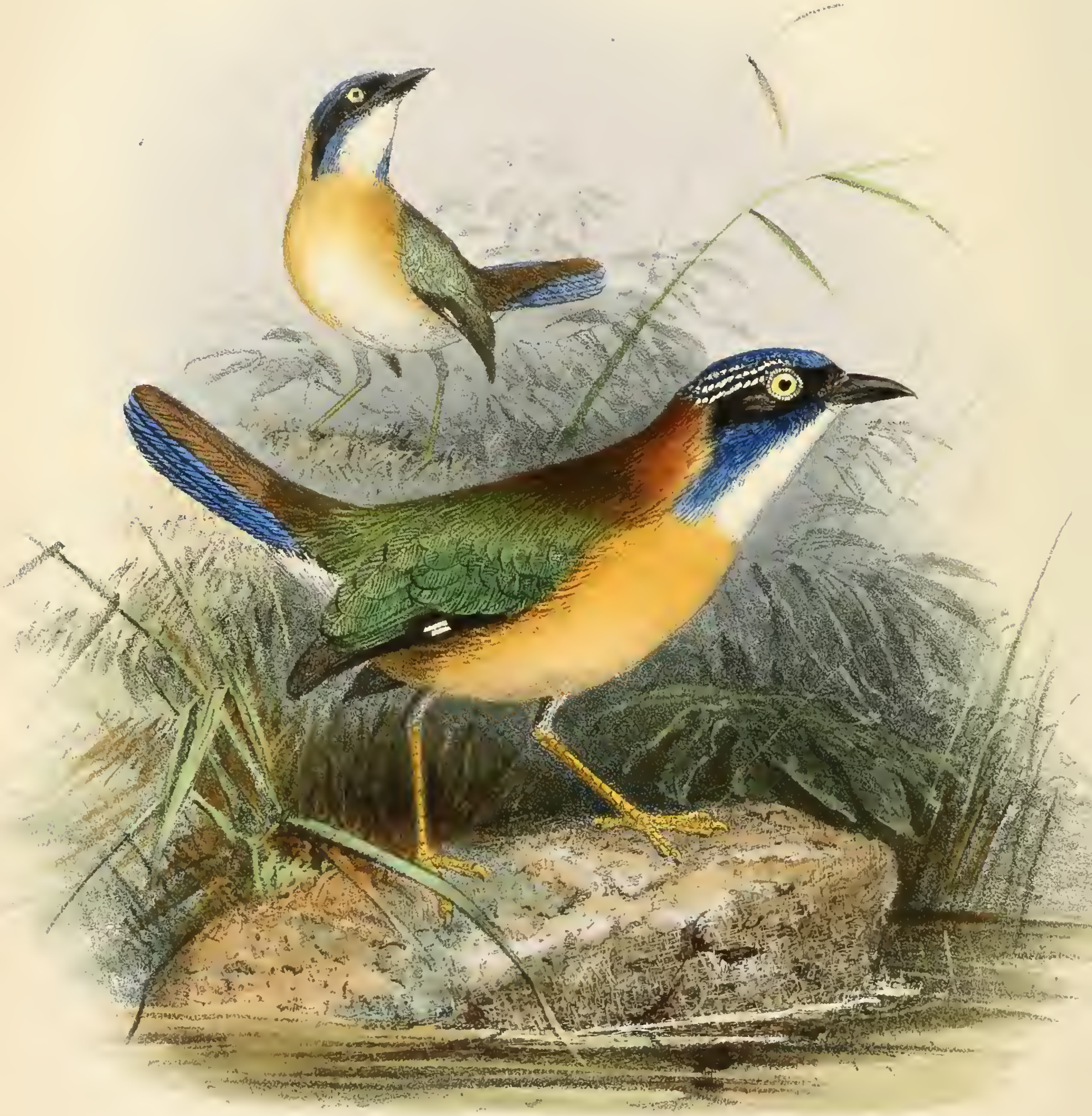
Ianthia rufilata ♂, Dec. 9, 1861.

Acquiring the brilliant tints of the adult male.

Length 5·7 inches; wing 3·2; tail 2½, of 12 feathers. Bill black, purplish brown towards the base. Inside of mouth pale flesh-colour, with a touch of ochre; blackish on tip of tongue and inside of mandibles. Skin round eye blackish. Iris deep brown. Ear-covert larger than eye, roundish, with a downward diameter-bone. Operculum semilunate on the outward arc. Legs and claws deep purplish brown, with pale soles and edges.

Myiophonus cæruleus.

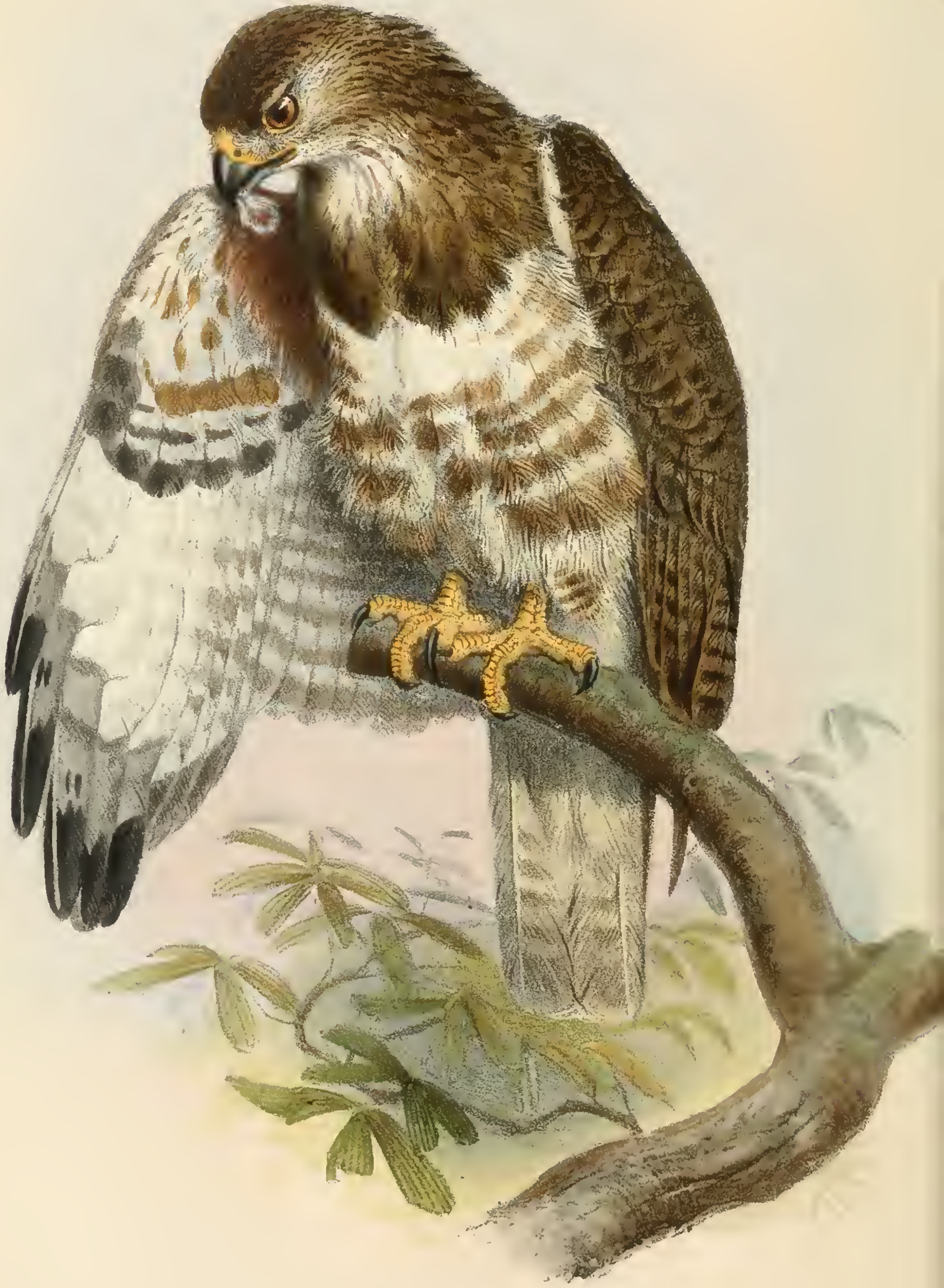
Three of these were seen near a rocky stream, perching at times



J. Wolf, del. et lith.

M & N. Hanhart, Imp.

ATELORNIS PITTOIDES.



J. Wolf del et lith

M. & N. Hanhart, impt.

BUTEO BRACHYPTERUS.

on the branches of the trees, at others chasing one another backwards and forwards, threading the dark-leaved boughs of the banyan; the cock bird singing in flight a loud, lively strain, much after the manner of the *Petrocossyphi* or Rock Thrushes.

XXVIII.—*Notes on Birds observed in Madagascar.* By S. Roch, Assistant-Surgeon, Royal Artillery, C.M.Z.S., and Edward Newton, M.A., C.M.Z.S. Part I.

(Plates VIII. & IX.)

On submitting to the readers of 'The Ibis' the following notes on the birds we observed on our journey between Tamatave on the coast and Antananarivo, the capital of Madagascar, we must, in justice to ourselves, explain that they are necessarily short, and in most cases unsatisfactory, in consequence of the little time the Embassy, of which we formed a part, had to accomplish their mission.

We left Mauritius on the 22nd of September, 1861; and the wet and unhealthy season in Madagascar commencing in November, it was most desirable that we should return to Tamatave before that time.

As subsequent events have shown, it was lucky we were able to do so, almost all the Europeans who performed the journey after us having been attacked with fever.

We arrived at Tamatave on the 26th of September, and on the 1st of October started for Antananarivo. Our route lay along the coast to the southward for about seventy miles, the most part of which was traversed by canoes on an almost continuous chain of lakes and rivers, running within a few hundred yards of the sea, and generally separated from it by a bank of sand, usually covered with brush-wood and stunted trees, of which Vacoas (*Pandanus*) and the Filao (*Casuarinus madagascariensis*) are perhaps the most conspicuous. On the land side we occasionally skirted a low forest; and sometimes the lake or river took us further from the sea, and led us through marshes where gigantic Arums and "Traveller's-trees" (*Urania speciosa*) were numerous; at others the vegetation was simply coarse grass and rushes.

In five days we reached Andoviranto; and the following morning, proceeding up a river for a few miles, our water-travelling ended, and we commenced our march up the country: from this point our route, as near as possible, was due west. The next three days we passed over hummocky hills covered with grass at the top, the valleys being more or less clothed with "Traveller's," Rafia Palms, and occasionally with dense clumps of feathery bamboo. As we continued to ascend, the hills became larger and more difficult to surmount; the "Traveller's" looked stunted, and the Palms less frequent. On the evening of the 9th, a narrow belt of forest between Ampasimbé and Beforona was passed; on the 10th and morning of the 11th the broader belt of Alanamasaotra, about thirty-two miles in width; and we presently came to the plain of Mooramanga, twelve miles wide, which has evidently at no very distant period been a lake. On the 13th the river Mangourou was crossed, on the 14th the high Ambodinangavo mountain and the last belt of forest, when we arrived on the open down-like country which stretches for some miles around the capital.

On the 16th we reached Antananarivo. The Embassy remained there six days; but we were too busily engaged with other matters to find time to attend to the ornithological features of the neighbouring country. Our return journey occupied thirteen days, including a halt of one day at the hot-springs of Ranomafana. Mr. Newton started for Mauritius on the 5th of November; and Dr. Roch remained a fortnight longer, making a journey along the coast to the northward as far as Foule Point.

We have adopted the arrangement and generally the nomenclature of Dr. Hartlaub's excellent 'Ornithologischer Beitrag zur Fauna Madagascar's' (Bremen: 1861); and our initials have been added to any particular observation that was made by one of us, without the knowledge of the other.

1. BUTEO BRACHYPTERUS, v. Pelz.; Hartl. p. 15. (Pl. VIII.)

This Buzzard was tolerably common, and seen from Ampasimbé to Ambohitroni on the Mangourou. Iris brown, cere yellowish, legs yellow, beak horn-colour.

2. FALCO RADAMA, J. Verreaux; Hartl. p. 17.

"On my return journey from the capital, near the summit of the Ambodinangavo mountain (the highest we crossed), a Falcon, apparently of this species, came hovering over the peak, just as I fired right and left at a brace of Quail (*Margaroperdix striata*), one of which dropped dead, the other flying over the hill-side. Instantly the Falcon, undisturbed by the report of the gun, made a stoop at the falling Quail within 30 or 40 paces of where I stood; missing the bird, it flew towards the rocky cliffs on the south side of the path, when it was joined by its mate, carrying a bird. As they approached the cliffs, I could hear their young crying.

"I obtained a good specimen of this bird on leaving Tamatave, towards the end of November, when about fifteen miles from land; after hovering about the ship for some time, it rested on the rigging, thus enabling me to shoot it. It is a young male, in good plumage."—S. R.

"At Antananarivo I saw the dead body of an adult Falcon, I believe of this species. The broad dark moustache was very conspicuous. It was in an advanced stage of decomposition, and its wings and tail had been closely clipped,—why, I could not learn. I was told that it had belonged to the king."—E. N.

The country in the neighbourhood of the capital is well adapted for hawking, but we did not hear of Falcons being ever trained for the sport by the natives. The *Scopus umbretta* would make a good quarry.

3. Falco gracilis, Lesson; Hartl. p. 18.

Several specimens of this Kestrel were obtained. We observed it throughout our journey from Tamatave to the capital. It appeared to us to fly much "sharper" than *F. punctatus* of Mauritius, which we do not think we ever saw in Madagascar. Iris brown, beak horn-colour, cere and legs yellow, claws black.

"On the 22nd of October, when on my way to the iron-mines of Imesina, and at about ten miles from Antananarivo, I observed two large nests (which I believe to have been those of *Scopus umbretta*) on low trees: the largest was about 5 feet high by 3 feet in diameter, and placed in the fork of a branch; in its sides there were two large entrances, 8 inches at least in diameter, and over each the materials of the nest formed a sort of porch. I sent one of my bearers up the tree, but I could not induce him to put his hand into the entrances of the nest; he commenced pulling away from the top, till he fairly unroofed the edifice, which consisted of coarse grass, rushes, and sticks, altogether enough to fill a moderate-sized cart, and drew out four unfortunate half-grown Kestrels and a rotten egg, which he stupidly broke. The young birds were afterwards eaten by himself and his companions with much gusto."—E. N.

4. ? Milvus parasiticus (Daudin); Hartl. p. 19.

A Kite, we presume of this species, was common along our route. At Antananarivo it was one of the few birds noticed. At nearly every village two or three might be seen circling high in the air, and occasionally descending for any garbage or stray fowls they could get hold of. At Tamatave they were always to be seen over the Bazaar, where the bullocks and pigs are slaughtered. The bird was so common that, believing we could always obtain a skin, we put it off till the last, and ultimately came away, we regret to say, without one. Their bills were yellowish white.

5. Nisus madagascariensis, J. Verreaux; Hartl. p. 20.

A Sparrow-hawk was seen at Ambohitroni, on the 25th of October; it appeared to be of the same species as the one afterwards shot by Dr. Roch, on the 31st, near Manambonitra. ♂. Iris bright yellow, back horn-colour, legs yellow.

6. Circus —— ? sp. indet.

"When crossing over the great elevated plain between the Mongourou and Mooramanga, on my return journey on the 25th of October, I saw a male Harrier beating over the short grass; it never, however, approached within gun-shot. There were several marshes forming suitable breeding-places for birds of this genus on the plain."—E. N.

7. Polyboroides madagascariensis (Daudin); *P. radiatus*, Hartl. p. 21.

We obtained a specimen* at Ranomafana, as it was circling over the village in the same manner as Kites are wont to do; and another the following day, as we were proceeding to Ampasimbé. Iris black, tip of beak black, cere and base yellow, legs bright yellow, claws black.

---

* The Madagascar form of *Polyboroides* is considered by Mr. J. H. Gurney sufficiently different from continental examples to deserve a distinct appellation.—Ed.

8. ? STRIX FLAMMEA, Linn.; Hartl. p. 24.

At Antananarivo, we found that this bird inhabited the celebrated "Tarpeian Rock" on the west side of the town. Every evening that we were there, we observed several leave it shortly after sunset, and soar away over the plain below, "snoring" as they flew, exactly like the European species. We were unable to obtain a specimen; and this was the only place at which we either saw or heard it. From the number of rats and mice that are to be seen everywhere, these birds cannot have much difficulty in getting a living; and there are but few cats to divide the spoil with them*.

---

* We are indebted to the kindness of the Rev. W. Ellis (author of 'Three Visits to Madagascar,' &c.) for the following information respecting the superstition of the natives about Owls in general :—

"In Madagascar, the Owl is regarded as a bird of evil omen and malign influence. The natives call it *Vorondolo* (ghost-bird); and as ghosts or spirits are regarded by the Malagasy as ministers of evil, and Owls and also cats are supposed to be personifications of evil spirits or mediums through which they afflict the people, they are on this account objects of apprehension and terror amongst all classes excepting Christians. If a man setting out on a journey, or about to commence any important work, were to see an Owl, he would halt or return, instead of prosecuting his journey, or would defer his work. And were an Owl to be seen near his dwelling, it would fill his family with alarm, as the sign of approaching calamity. A Malagasy can employ no epithet more expressive of the malignity and wickedness of any one whom he may wish to injure in the estimation of others than to call him 'owl' or 'cat.' These creatures are generally driven from the neighbourhood of their dwellings, hence the intolerable swarms of rats and vermin with which they are infested. The natives, when questioned, assign as the ground of their opinions the mysterious existence of the Owl, which lives in concealment among rocks or trees, its nocturnal habits, its singular and unbirdlike visage, with its large eyes, its peculiar cry, and especially its hovering or flitting through the air at the beginning of the night. It is not known to what extent they are considered to be connected with the practice of sorcery, witchcraft, or other evil influences of supposed supernatural origin; but as the prejudice against cats is subsiding, and some of the natives prefer them to rats and mice,

9. ? Caprimulgus madagascariensis, Sganzin; Hartl. p. 25.

We heard a Nightjar most nights between Tamatave and Beforona; and one was shot at Mamorack, but its skin unfortunately was not preserved. The note appeared to us to be identical with that of *C. europæus.*

"At Mamorack I saw one of a much larger species, but was not able to obtain a specimen. My native bearers knocked down two of the smaller kind with sticks, as we passed through the low jungle between Nosibey and Foule Point. The birds appeared quite blind in the sunlight, and adhered so closely to the cover of fern in which I found them, that I never could get a shot at a sufficiently long distance. The two specimens killed by the natives were unfortunately destroyed."—S. R.

10. Cypselus —— ? sp. indet.

"On the 7th of October, between Boiboahazo and Manambonitra, and again on crossing the Mangourou on the 24th, I saw several *true* Swifts. They were not *Collocaliæ.*"—E. N.

11. Phedina —— ? sp. indet.

"On the 9th, between Ampasimbé and Beforona, I saw two or three Martins, belonging, I am sure, to this genus: they were not, I think, the same as the Mauritian species *. These had a lighter breast, grey back, and dark wings."—E. N.

12. Hirundo —— ?

"On the 2nd of October, at Hivoondroo on the coast, I saw several of what appeared to me to be birds of this genus."—E. N.

13. Eurystomus madagascariensis (Linn.); Hartl. p. 27. "Vorooncark."

"I got a specimen at Ranomafana, on the 30th of October." —E. N.

---

there is reason to hope that the harmless and useful Owl will before long cease to be regarded as a messenger of evil, and will be welcomed and encouraged as the friend of the farmer, and the destroyer of the vermin that rob him of his grain."

* "Since the hurricane of February 1861, which lasted for six days, I have not seen a single example of *Phedina borbonica* in this island. They were never very numerous."—E. N.

"These birds, from their habits and mode of flight true Rollers, were very numerous in the thin forest close to the village of Farafata, about six miles to the northward of Tamatave. They appear to evince a predilection for patches of forest that have been burnt, where they may be seen, generally in pairs, perched upon the branch of some tall, bare tree, sheltering their bodies from view behind the branch, uttering a hoarse chatter. They did not fly far when fired at or disturbed, but they would dive through the wood with considerable swiftness, again to take their station behind a branch on another withered tree. They nest in the fork or hollow of some tall isolated monarch of the forest, frequently choosing one devoid of any foliage. On the topmost branch one may always be seen upon the watch, while the other forages for food in the neighbourhood. On its cry of alarm the mate quickly appears, and both display considerable courage in repelling the intruder upon their solitude, probably a Kite in search of their young. I have frequently seen them do this in the burnt jungle on the left of the road between Nosibey and Foule Point. They increase their chattering hoarse cry when attacking the Kite."—S. R.

14. Atelornis pittoides (Lafr.); Hartl. p. 29. (Pl. IX.)

It was getting dark as we approached Alanamasaotra on our journey up, when we saw several of these birds run across the path; one of them was shot by Dr. Roch. On our return we saw one again, but it was only in the dusk of the evening. It is singular that such a brightly coloured species should only appear at nightfall, as it would seem alone to do. They have a very peculiar manner of jerking their tails when they alight on a branch. As far as we observed, they always kept very near the ground, and are probably ground-feeders.

15. Ispidina madagascariensis (Linn.); Hartl. p. 30.

A specimen was obtained by us in the great forest of Alanamasaotra, on the 27th of October—the only one seen.

16. Corythornis vintsioides (Lafresnaye); Hartl. p. 31. "Vinchi."

Tolerably common along the coast, and we observed it up the country as far as Béforona.

17. MEROPS SUPERCILIOSUS, Linn.; Hartl. p. 31.

A species of Bee-eater, apparently the same, was frequently observed on the coast.

18. NECTARINIA ANGLADIANA, Shaw; Hartl. p. 34. "Schonwee."

First observed at Manambonitra, on the 7th of October. Its chirp is exactly like a Tree Sparrow's, and when first heard it was taken for a bird of that genus; its song is moderate.

19. NECTARINIA SOUIMANGA (Gmelin); Hartl. p. 34.

The native name is the same as that for the preceding. The song is strong, loud, and very like a Willow Wren's. We observed it everywhere between Tamatave and Ankera Madinika, where we left the forest.

"On October 31st, near Ranomafana, I watched a hen bird of this species building for some time. The nest, which was an open one, was placed on a low bush near the ground, and much exposed. It was nearly completed. Outside it was built of coarse grass and decayed leaves, untidily put together; inside it was lined with the down of some grass or reed."—E. N.

20. DRYMŒCA MADAGASCARIENSIS, Hartl. p. 35. "Tec-tec."

Common from the coast up to the beginning of the forest. It inhabits the dry upland as well as the swamps. Its only note or song that we heard was a harsh "tick-tick," uttered when flying.

21. PRATINCOLA SYBILLA (Linn.); Hartl. p. 38.

We saw this species first at Ranomafana, and from thence up to the Hovah country. We did not observe it on the coast, which is probably too hot.

"On the 25th of October, on our return journey when crossing the plain of Mooramanga, I found a nest of this species in some long grass in a swamp; both the nest and four eggs were in every respect similar to those of the common European species. Unfortunately the latter were just ready to hatch, and our rapid travelling prevented me from attending to them immediately; and when I had time afterwards, I found that they had all burst, and the shells were so rotten that it was impossible to preserve them."—E. N.

22. MOTACILLA FLAVIVENTRIS (J. Verreaux); Hartl. p. 39.

On our journey up and down we saw a pair of these birds as we crossed the Mandraka, about 125 miles from the coast, and on the coast on our downward journey they were tolerably common, but we saw none between these points.

"At the Mandraka I shot a male and female. The former made a good specimen. As in Yellow Wagtails generally, it appears to differ from the female in being larger and the plumage more brilliant."—S. R.

23. TYLAS EDUARDI, Hartlaub, P.Z.S. May 13, 1862[*].

Shot in the forest of Alanamasaotra, on the 27th of October. Iris yellow, legs and feet dark brown.

24. HYPSIPETES OURAVANG (Gmel.); Hartl. p. 44. "Wroova."

Everywhere plentiful, from the neighbourhood of Tamatave to the end of the forest. In note and habits it resembles its congener, *H. olivacea.*

25. CEBLEPYRIS CANA (Lichtenstein); Hartl. p. 47.

One killed near Fantomasin, on the coast, on the 4th of October; and another on our return journey, in the Alanamasaotra forest, on the 27th. Iris brown, legs and beak bluish black. Both specimens are females.

26. LEPTOPTERUS VIRIDIS (Gmelin); Hartl. p. 48.

We observed this bird on several occasions, and shot a pair near Boiboahazo on the 31st of October. They evidently had a nest close by. Iris hazel, skin round the eye bluish grey, beak bluish lead-colour, legs black.

---

[*] We subjoin Dr. Hartlaub's description of this entirely new form of bird:—

"TYLAS EDUARDI, sp. nov.

Supra subolivascenti-plumbea, capite toto nigro, nitore chalybeo; cauda dorso concolore, scapis rectricum supra nitide nigris, subtus albis; corpore subtus cum subalaribus et subcaudalibus ochraceo; capitis nigredine circumscripte albido circumdata; rostro nigro; pedibus fuscis. Long. tot. circa 8″; rostr. a fr. 9‴, a rict. 11½‴; al. 4″ 5‴; caud. a bas. 3″ 4‴; tars. 9⅔‴; dig. med. c. ung. 9‴.

"The genus *Tylas* is nearly allied to *Hypsipetes,* but differs in the beak being decidedly stronger, broader, and more inflated; in the longer wings, which in *Hypsipetes* do not reach to the middle of the tail; in the tail being proportionally shorter; and in the rictal bristles being much more developed. The under tail-coverts are very long. The iris is yellow—a colour not found hitherto in the genus *Hypsipetes.* The whole system of colouring is different from that of the latter genus."—ED.

27. Dicrurus forficatus (Linn.); Hartl. p. 49.

Seen from the coast up to the Alanamasaotra forest.

"I found a nest of this bird when passing the forest on October 27th; it was suspended in the fork of a tall bush, as an Oriole's would be, and was composed of a stiff hairy kind of grass, neatly interwoven, without any softer lining. It contained three salmon-coloured eggs, spotted, chiefly at the larger end, with dull red and ash-colour, some of the spots having a 'penumbra' as in the eggs of the Chaffinch, the spots almost forming a circle. They are altogether Shrike-like in appearance. Long diam. 1 inch, transverse diam. ·70 inch.

"So intent was the mother in hatching them, that she would not leave the nest until the boy who climbed the tree almost laid his hand on her.

"I have seen this little bird attack with such fierceness a Kite which hovered too close to its nesting-place, as to make the latter beat a quick retreat. They have a curious habit of darting to the surface of a stream, striking it with their wings, and ascending to a bush on the opposite side; they keep this up in pairs, sometimes for twenty minutes, crossing and recrossing each other, probably catching flies or aquatic insects in the water."—S. R.

28. Cyanolanius bicolor (Linn.); Hartl. p. 49.

One was brought to Dr. Roch alive at Antananarivo. It fed freely on flies.

29. Vanga curvirostris (Gmelin); Hartl. p. 51. "Voorambanga."

Obtained near the coast.

30. Corvus madagascariensis (Bonaparte); Hartl. p. 52. "Quork."

Very common everywhere, with the exception of the forest. They usually keep in small parties of six or seven to twenty, much as the Hooded Crow does in Europe. Their cry is very like the spring note of the Rook, and it was with no small pleasure that we again heard the familiar sound. We found a nest on a low tree in the middle of the capital. The nest and eggs were in every respect similar to those of the Common or Hooded Crows.

31. Hartlaubia madagascariensis (Linn.); Hartl. p. 52.

Seen from the coast all the way to the great forest of Alanamasaotra. Legs and beak black, iris dark brown.

"I met with these birds frequently on my way to Foule Point. They have the same pugnacious disposition as the East Indian *Pycnonoti*; for on leaving Foule Point in November, I came upon two in the jungle so fiercely engaged in fight that I very nearly made prisoners of both with my hands."—S. R.

32. Foudia madagascariensis (Linn.); Hartl. p. 55.

"Near Beforona, on the 9th of October, I saw some of these birds."—E. N.

33. Foudia erythrocephala (Gmelin); Hartl. p. 55.

"In the forest near Ankaranickra, on the 14th of October, I saw one of this species."—E. N.

34. Spermestes nana (Pucheran); Hartl. p. 56.

We saw this bird pretty frequently about Ranomafana and Ampasimbé.

35. Mirafra hova, Hartl. p. 57.

From the coast up to the capital, wherever we crossed open country, a species of Lark was very common. The only specimen preserved was killed at Ampasimbé, on the great plain near the Mangourou. It was very common—as common as *Alauda arvensis* is in the eastern counties at home. They appeared to us to be breeding, but we searched in vain for a nest. The song is very poor; their flight while singing is very like that of *A. arborea.*

[To be continued.]

XXIX.—*Notice of the supposed occurrence of the American Kill-deer Plover* (Ægialites vociferus) *in Great Britain.* By P. L. Sclater.

The list of American stragglers occasionally met with in the British Islands is now so large, that little surprise need be manifested at its still further increase. But the prospect of any additional species being occasionally to be met with within the limited sphere of observation of the resident Englishman is always agreeable, and I have no hesitation in deciding that all such instances, whether founded on very clear and decisive evidence or not, are well worthy of record in 'The Ibis,' as a guide to future observers in the same field. I have, therefore, much pleasure in making known the following facts, which lead me to believe it probable that the American Kill-deer Plover (*Ægialites vociferus*) has been met with on one occasion in this country.

About a month ago, Mr. John R. Wise (a gentleman resident in the south of Hampshire, and now engaged in preparing for the press a work on the History and Scenery of the New Forest, which will be published by Messrs. Smith and Elder about the end of the year) brought to me a stuffed specimen of a Plover, enclosed in a glass case. This, he stated, belonged to a friend of his (a Mr. Tanner), and had been undoubtedly killed in the New Forest. I had no difficulty in recognizing the bird at the first glance as being the *Ægialites vociferus* of North America; for that species is so well marked and so different in appearance from its allies of the same genus as to be very readily identified. In reply to my request for further information as to its authenticity as a British specimen, Mr. Wise kindly favoured me, shortly afterwards, with the following particulars:—

"Since I wrote to you, I have seen Mr. Tanner, and communicated with the bird-stuffer who prepared the bird. The facts are these:—The bird was shot by a keeper to the Salmon Association of Christchurch, of the name of Douding (now dead), in a potato-field near Knapp Mill, on the River Avon, about a mile from Christchurch.

"The bird was taken in the flesh to Mr. William Hart, a bird-stuffer in Christchurch, from whom my friend Mr. Tanner bought it.

"The date was some time in April 1857, but I cannot find out the day of the month."

It may be observed that some corroborative evidence of the bird having been brought to Mr. Hart "in the flesh" would still be desirable; but I see nothing very improbable in the alleged facts, and Mr. Wise seems confident as to their authenticity.

The Kill-deer Plover has a wide range in America, extending from the Arctic Regions to Mexico (Sallé, Proc. Zool. Soc. 1857, p. 206) and Guatemala (Ibis, 1859, p. 228). It is also occasionally met with in the Bermudas during winter. The only wonder, I think, is that it has not been before noted in England*, where so many other American species of less extended range and more limited powers of flight have already occurred.

XXX.—*Note on the Birds of Palestine.*

By the Rev. H. B. Tristram.

I have recently had an opportunity of examining two collections of birds from Palestine, one of which, made by the Rev. Ridley H. Herschell, is of considerable extent. As these collections contain upwards of twenty species which escaped my observation when in that country, it may not be out of place to enumerate them, though the additions are of small interest, except as showing the very close affinity which exists between the avifauna of

---

* There are 49 species of the Suborder *Grallæ* enumerated in Baird's 'North American Birds,' one of which (*Hæmatopus ater*) is very doubtful, and one (*Philomachus pugnax*) is a European straggler in America. Out of these 9 are common to Europe and North America: namely,

Squatarola helvetica.
Strepsilas interpres.
Phalaropus hyperboreus.
,, fulicarius.
Tringa canutus.
Tringa maritima.
,, subarcuata.
,, alpina.
Calidris arenaria.

Out of the 38 remaining species 11 have been already registered as accidental visitors to Europe: namely,

Charadrius virginicus.
Macrorhamphus griseus.
a. Actodromas maculata.
b. ,, wilsoni.
c. ,, bonapartii.
Symphemia semipalmata.
Gambetta flavipes.
Tringoïdes macularius.
Actiturus bartramius.
Tringites rufescens.
Numenius borealis.

a. = Tringa pectoralis, *Auctt. Britt.*
b. = Tringa pusilla, *Auctt. Britt.*
c. = Tringa schinzii, *Auctt. Britt.*

so that the occurrence of others of this wandering suborder may be reasonably expected.

Palestine and that of South-eastern Europe. The Jordan valley, however, presents a remarkable exception. It is there that *Crateropus chalybeus*, Bp., *Nectarinia osea* (Bp.), and *Amydrus tristrami* (Sclater) occur; and to these we may now add *Merops viridis* and *Pluvianus ægyptius*.

I find all the species I had given in 'The Ibis,' vol. i. as doubtful, now confirmed by the collections I have examined.

The *Gypaëtus*, as I perceive by Mr. Herschell's specimen, is *G. barbatus*, not *G. nudipes*.

The species are numbered continuously from the list given in 'The Ibis,' vol. i. p. 23.

120. BUTEO RUFINUS, Kaup. Long-legged Buzzard.

Shot by Mr. Herschell in Southern Judæa.

121. ACCIPITER NISUS, L. Sparrow-Hawk.

Throughout the country. Four specimens were shot in as many different districts.

122. BUBO ASCALAPHUS, Sav.

Shot near Hebron.

123. SYRNIUM ALUCO, Cuv. Tawny Owl.

The Palestine specimens are peculiarly pale in plumage.

124. CAPRIMULGUS EUROPÆUS, L. Goatsucker.

125. CAPRIMULGUS —— ?

Another and smaller species, shot in the valley of the Jordan.

126. HIRUNDO CAHIRICA, Licht.

127. MEROPS APIASTER, L. Bee-eater.

128. MEROPS VIRIDIS, L.

Shot in the valley of the Jordan. Probably the western limit of this species, which has not, I believe, been hitherto noted as occurring in Syria.

129. ALCEDO ISPIDA, L. European Kingfisher.

Common in the Jordan valley.

130. ORIOLUS GALBULA, L. Golden Oriole.

131. ERYTHACUS RUBECULA, Bp. Redbreast.

132. RUTICILLA PHŒNICURA, Bp. Redstart.

133. Motacilla lugubris, Temm.

134. Motacilla sulphurea, Bechst. Grey Wagtail.

135. Lanius meridionalis, Temm. Southern Shrike.

136. Lanius personatus, Temm. Masked Shrike.

137. Corvus frugilegus. Rook.
Near Jaffa.

138. Alauda arborea, L. Woodlark.

139. Picus syriacus, Hempr. & Ehrenb. Syrian Woodpecker.

140. Columba turricola, Bp.?
Apparently the bird so described by Bonaparte from Italy and Persia, having the back and rump not white, but of a pale lead-colour, and being rather smaller than our Rock Dove. Shot at Jericho.

141. Pluvianus ægyptius, Temm.
Shot by Mr. Herschell in the Jordan valley.

142. Anas acuta, L. Pintail Duck.
Shot by Mr. Herschell in the dry ravine of the brook Kedron.

143. Larus gelastes, Temm.
Taken at Jaffa.

XXXI.—*Ornithology in the International Exhibition.*

We deem it advisable, while it is yet in the power of our readers to test the truth of our remarks, to give, as far as we can, an account of what pertains to Ornithology in the International Exhibition. We are sensible that if we deferred the notice to our next Number we should be able to render it more complete; for though we have taken some trouble about the matter, it is impossible that we can have seen everything relating to our science that is contained between the two monstrous domes of Brompton; indeed, some of the very objects entered in the Catalogues have hitherto escaped our search. But, on the other hand, we believe that by delaying this paper until the close of the Exhibition we should be depriving it of much that will interest our readers, and, perhaps, make it of value to future ornithologists as a contemporary record of the things shown.

As the magnificent picture-galleries of the building first attract the attention of visitors, so we may as well begin by noticing the treatment ornithology receives at the hands of painters. Here we feel we are treading on dangerous ground; but since we do not pretend to speak as critics of art, and 'The Ibis' bears not the impress of authority from Her Majesty's Commissioners, perhaps our remarks may be understood to be the plain statement of our opinion as ornithologists. To be brief, birds do not play an important part in the pictures exhibited, and, with a few brilliant exceptions, we are sorry to say they are not treated as if the artists had paid attention to some of the very simplest points of their structure. Thus, in Mr. G. Cole's large picture of "Pride and Humility" (British Division, No. 603), the arrangement of the wing-quills of the strutting Turkey-cock (though the whole bird is admirably outlined and coloured) is inverted, the inner web of the first primary overlapping the outer web of the second, and so on. Mr. J. Webbe's "White Owl" (No. 598), a portrait very true to nature in general expression, and a picture, we are told, which has been highly lauded by one of our most celebrated judges of art, is clothed to all appearance, not in feathers, but in locks of wet wool, giving the bird somewhat the look of a sheep on a rainy day. Even an artist so great as Sir Edwin Landseer does not always succeed in rendering the effect of plumage, as witness the Wild Swan in his magnificent "Bolton Abbey" (No. 407), where the beautifully soft feathers of the breast are so indifferently represented as to give one at first sight the idea of the bird having been plucked. But, in his "Defeat" (No. 406), the soaring Eagle against the pale glow of the dawn seems to come as near perfection as possible. Of Mr. Wolf's skill the readers of 'The Ibis' require no assurance. The "Sir Joshua" of animal-painters pays the country which has so long been his domicile the compliment of exhibiting among her artists, and, high as his two works are hung, "The Tale (tail) of a Teal" (No. 523) and "The Ptarmigan's Haunt" (No. 585) will, we are certain, catch the eye of every ornithologist that enters the gallery. We do not express any opinion as to their artistic merits, though we believe good judges find no fault with them on that score, but as pictures of bird-*life* they are unapproached by anything we have seen in the Exhibition. Of the "Sea Piece" (No. 1451), by Mr. H. Gätke of Heligoland, we can also speak highly, having with some difficulty discovered its abiding-place at the end of the print-gallery. It is very good, and the Gannets in the foreground are painted with great accuracy, showing this artist to be as good an interpreter of nature with the pencil, as many of our readers already know him to be with the pen.

In the Foreign department ornithological pictures are rare, and we have not met with any deserving high praise from our point of view. We regret to find nothing from the easel of Herr Ferdinand von Wright, a Finnish artist, whose works are well known and appreciated in his own country, in Sweden, and in Germany. This gentleman, from the specimens we have elsewhere seen of his painting, has a remarkable gift for painting Owls; and in this particular though somewhat limited sphere, even Mr. Wolf would find him a rival hard to beat. Norway possesses two painters who draw their subjects from the bird-world, but we cannot congratulate either of them on having attained great success. The "Partridge and Young" (Foreign Division, No. 1425) of Herr Printz is but tame, while Herr Böe's four ornithological pictures (Nos. 1414, 1443, 1447, and 1448) seem studies rather of stuffed than of living birds. Thus we conclude our list of works in which ornithology is illustrated by the "shapes and forms of art divine."

In other departments of the Exhibition where figures of birds are introduced, either alone or as accessory ornaments, we find them generally represented conventionally, and therefore in a manner distasteful to the naturalist, rather than with any regard to accuracy. Yet that this is by no means essential to the requirements of either beauty or utility is shown by at least one notable exception—an ecclesiastical lectern of carved oak, in the Mediæval Court (Class 30, No. 5659), the work of the Rev. R. S. Baker, representing a White-tailed Eagle, studied from life, which only wants an indication of the feet-scales to be as perfect an image of the bird, as it is a handsome and serviceable piece of church-furniture.

It will no doubt be in the memory of many of our readers that about a year ago there was published in the newspapers a memorial, addressed to Her Majesty's Commissioners for the International Exhibition, and bearing the signatures of about a score of naturalists—some the most eminent in their particular lines that the country produces. This document requested the "establishment of a class solely devoted to articles illustrating the various methods of preserving zoological and botanical specimens." To it the Commissioners replied, through their Secretary, that the arrangement of the classes being then settled, it was too late to make any alteration therein, but that they would so far yield to the prayer of the memorialists as to establish a "subclass" for the reception of such specimens. Accordingly the visitors to Brompton who will take the trouble of scaling the almost alpine heights of the central tower in the Exhibition Building will have presented to their breathless gaze the collected results of this memorial, in the shape of various stuffed birds and beasts, divers trays of shells and fossils, and sundry sea-weeds displayed on cartridge-paper, side by side with books, maps, diagrams and globes, school-fittings and furniture, wax-dolls, toys and games! We must confess, after a rather minute examination of these specimens, termed in the Official Catalogue "Illustrations of Elementary Science," that we honestly thank the Commissioners for placing this exhibition of the art of taxidermy at an elevation so lonely and so inaccessible; for we hope it may thereby escape the notice and the criticisms of our brother-naturalists from aboad. A more sorry show it is scarcely possible to conceive; for the specimens contributed by Messrs. Bartlett and Son, good as they are—especially the case of gorgeous *Psittacidæ*—hardly come up to what might have been expected of the skilful restorer of the Dodo, and altogether fail to cover the shortcomings of the rest of the collection. Mr. Ward shows an albino *Colymbus septentrionalis,* which we have some hesitation in considering "unique," as he labels it; and Mr. Wilson has two birds fairly stuffed; but of the other works exhibited the less said the better. In the exercise of common charity we refrain from naming those "naturalists," chiefly of the metropolis, who have here shown so small an appreciation of nature. It is only right to say that Mr. John

Hancock, whose magnificent groups of birds justly attracted so much attention when displayed in the central transept of the old Crystal Palace, does not send anything. The story goes that this gentleman applied for the room necessary to contain some subjects he had executed, but that his application was met with the stipulation that he should reduce by one-third the space he asked for. Now as nature, in forming large birds, such as Eagles and Swans, unfortunately did not take into consideration the possible requirements of even International Commissioners, the demand was equivalent to a refusal, and consequently the public have lost the pleasure of once more gazing on Mr. Hancock's achievements. A similar reason also, we believe, deterred Mr. Leadbeater from exhibiting. We must beg continental ornithologists, however, to give us credit for the assertion that this country has other bird-stuffers, both amateurs and professionals, who are in the habit of turning out specimens far more beautiful than those by which, as far as the United Kingdom is concerned, ornithology is so badly represented in the Exhibition.

Though, as we have just above stated, the British display of bird-stuffing has been collected in one subclass, it is very much the contrary with colonial and foreign specimens. These are scattered about as irregularly as in 1851; some, indeed, can scarcely be said to be classed at all. A good proportion of our numerous dependencies send stuffed birds, though with what particular object they appear in an Industrial Exhibition it might be hard to say,—unless it be to show the raw materials of the process by which ornithologists may be manufactured. Nevertheless we are far too thankful for what is thus put within our reach to cavil thereat; besides, many of the colonial consignments comprehend objects of great scientific interest. In noticing them we shall follow the order in which they are arranged in the first edition of the Catalogue.

To begin with our colonial possessions, the General Committee of South Australia, through Mr. Henry Jones, show a number of birds (No. 2) moderately well mounted in cases, containing, among others, a specimen of that rare Accipitrine, the *Gypoictinia melanosternon* (Gould, B. of Austr. i. pl. 20), the only example now, we believe, in this country, since the removal of Mr. Gould's type to Philadelphia. There are also four drawings representing the nest of the Mallee-bird of South Australia (*Leipoa ocellata*), and a stuffed example of the bird alongside. The drawings are not of very great artistic skill, but every additional record of the eccentric nidification of this tribe of birds is worthy of comment.

Western Australia is contented to exhibit some Emeu's eggs, which we suppose may be taken to be those of Mr. Bartlett's newly recognized species or variety, *Dromæus irroratus* (P. Z. S. 1859, p. 205, and 1860, pp. 205, 211), especially as the tippets and muffs manufactured of this bird's feathers present the well-defined terminal spot of that species. From the Bahamas, the Cape of Good Hope, and Ceylon, we have failed to discover any ornithological specimens, except some edible birds'-nests (of *Collocalia fuciphaga,* we presume) from the last-mentioned colony. India sends only bundles and fans of Peacock's feathers, and so does not do much to elucidate her still imperfectly known Ornis. Jamaica and Mauritius are equally unrepresented as far as ornithology goes. The Commissioners for Natal show, among other specimens of natural history, four cases (No. 7) set up by Mr. Ward of London, containing a fine series of the birds of this colony, prepared under the superintendence of their Hon. Secretary, Dr. R. J. Mann. Amongst these we may mention, as particularly worthy of notice, an example of *Spizaëtus zonurus,* of which Mr. Gurney has lately spoken in these pages (see *anteà,* p. 150); *Bubo lacteus,* not previously known to occur in Natal; and the large Wattled Goose (*Sarcidiornis regia*). New Brunswick exhibits nothing in our way. Newfoundland offers us, among others from the collection of the late Mr. W. H. Ellis, M.P.P., three cases of *Lagopus albus* (No. 1), containing a fine series of seventeen individuals, and exemplifying the autumn, winter, and summer plumages of that widely spread and ever-changing species. From the same colony Mr. N. Norman sends a couple of fairly preserved birds (No. 16); and Mr. G. Ehlers also transmits a photograph (the specimen itself having been too much injured to admit of preservation) of a European Woodcock (*Scolopax rusticola*), which was shot at an open spring near St. John's, on the 9th of January last, after some long-continued easterly winds. It is stated, in a notice appended to the frame, that though the ground had been covered with snow for many weeks, the bird was in good condition, weighing $12\frac{3}{4}$ oz., which we believe to be above the average of English-killed examples. This fact is interesting as helping to prove that the tide of ornithic emigration across the Atlantic is not quite so one-sided as is often supposed. New South Wales exhibits four cases of birds. Three of them are placed so high that it is difficult to say what the species may be. But one of them (No. 434), as we are informed by the Provincial Catalogue, is exhibited by Lady Gipp (the birds having been mounted by Mr. Leadbeater), and the other two contain 120 specimens of small birds of the colony, exhibited by T. W. Crawley, Esq., of Sydney. In the fourth case a pair of the Black Cockatoo (*Calyptorhynchus banksii*) are stationed, feeding a young bird in an open cup-shaped nest formed of moss! We will veil the name of the exhibitor of this ornithological marvel in the judicious obscurity which he would certainly covet, if he knew the untruthfulness to nature of which he has been guilty, merely remarking that the Parrots of this group breed in hollow trees. New Zealand is represented by two cases (No. 67), mounted by Mr. W. Bruce, and exhibited by Mr. Edward King, comprising the following species said to have been procured in the province of Auckland :—

Halcyon vagans.
Prosthemadera novæ zeelandiæ.
Anthornis melanura.
Xenicus longipes.
Certhiparus senilis.
Miro toitoi.
Petrœca albifrons.
Anthus novæ zeelandiæ.
Rhipidura flabellifera.
Chrysococcyx lucidus.
Platycercus auriceps?
Carpophaga novæ zeelandiæ.
Anas superciliosa.

The second case contains ten birds, amongst which we notice, besides several also contained in the first, *Athene novæ zeelandiæ*, *Eudynamys taitensis*, *Fuligula novæ zeelandiæ*, and *Rallus assimilis*.

From Nova Scotia, our old friend, Mr. A. Downs, sends a case of Game Birds and Wild Ducks (No. 5), including nothing very rare, but fully maintaining his high repute as a taxidermist. In Queensland, Mr. A. Hodgson exhibits one, and Mr. C. C. Macdonald of Cadargah three cases of birds (Nos. 90, 96, 97). Among them we notice the *Menura alberti,* the beautiful *Pitta strepitans,* and several interesting Pigeons (*Lopholæmus antarcticus,* &c.). These have also been mounted (not too well) by Mr. Ward.

St. Vincent shows nothing ornithological. Tasmania produces feathers and an egg of her Emeu (Nos. 618, 624), three specimens of *Strix castanops,* and two others badly set up, contributed by Mr. W. Chatfield, and a few Penguins' skins, with a considerable assortment of fans and such-like ornaments made of feathers. Mrs. Crowther also exhibits a series of bird-skins that appear to have been selected for their brilliant colours.

Vancouver's Island sends a case of birds containing specimens of *Pyranga ludoviciana, Turdus nævius, Hirundo thalassina, Sialia mexicana, Colaptes mexicanus, Picus ruber, Hedymeles melanocephalus,* and what we suppose must be *Bonasa umbelloides* (Baird, B. Am. pp. 630, 925).

So much for the British dependencies that have sent in their goods in time to be inserted in the Official Catalogue. But there are likewise several of the tardy arrivals that merit the ornithologist's attention. Victoria sends three glass cases containing birds well set up, but without the name of the artist or exhibitor. In one of them we recognize the fine *Athene strenua* (Gould, B. of Austr. i. pl. 35). Canada sends several cases of birds to illustrate her Ornis. These are exhibited by Mr. James Thompson of Montreal and Mr. S. W. Passmore of Toronto. The series of North-American *Anatidæ,* though not particularly well stuffed, nor including any great varieties, is very fair; and there is a Buzzard amongst the *Accipitres,* which is doubtless *Buteo insignatus* of Cassin. We have also to notice from British Guiana eight cases prepared (like those from Natal and Queensland) by Mr. Ward. This collection includes a good series of Accipitres, such as

Buteo pterocles.
,, pœcilonotus.
,, melanops.
Buteogallus nigricollis.
Spizaëtus ornatus.
Micrastur brachypterus.
Hypotriorchis femoralis.
Ibycter ater.
,, americanus.
Circus maculosus.

We observe in the same case an example of the American Peregrine (*Falco anatum*). If this is really a "Guiana-killed" specimen, it is the most southern locality for this bird hitherto recorded. Messrs. A. and E. Newton have, however, noticed it in St. Croix (Ibis, 1859, p. 63), Mr. Cottle procured a specimen (now in the British Museum) in S. Nevis, and Mr. Salvin (Ibis, 1859, p. 219) records the occurrence of a "single example" at Dueñas; so it is not such a great step further south.

Of Foreign States (still following the arrangement of the Catalogue), Africa, whether Central or Western, is for once false to her old character, and has no ornithological wonder to show. Belgium and Brazil, China and Costa Rica, are equally devoid of objects to be here noticed. Denmark escapes only by some zoological drawings for educational purposes, exhibited by Herr J. C. Thornam (Subclass 29. B, No. 241).

The extensive area occupied by the French department contains several noteworthy objects to the ornithologist. Entering from Italy, a large series of well-mounted birds meets our eyes as they stand well arranged on the shelves to our left hand. There is, first (886), a series of the principal types of mammals and birds considered to be useful and hurtful to agriculture in France. These specimens are borrowed, we believe, from the galleries of the Jardin des Plantes. They are all correctly named and labelled, and were, as we are informed, selected for the purpose by M. Florent-Prevost, Aide-Naturaliste to the Museum of Natural History of that establishment,—a name well known in the literature of ornithology. The same gentleman exhibits (885) a very interesting series of the dried contents of the stomachs of the principal birds of France, arranged in order, with the object of showing the nature of their food. Each specimen is marked with the date at which it was obtained, and, as an accurate register has been kept of the birds' stomachs examined in this way for the last twenty-four years (of which a specimen page is shown below), the *résumé* gives a very fair notion of the nature of the sustenance of the birds of France in all seasons, and affords a base upon which they may be divided into the two catalogues of *utiles* and *nuisibles*. There is, besides, a collection of the *game* of the three different regions into which France is divided agriculturally, illustrated by specimens from the same source as those mentioned above, and, we believe, selected by the same naturalist. Some of them are worth mentioning, but of course the classification is rather fanciful.

Corn-region.	*Wine-region.*	*Silk-region.*
Alauda arvensis.	Columba palumbus.	Emberiza hortulana.
Turdus musica.	„ œnas.	Pterocles arenarius.
Perdix cinereus.	Coturnix dactylisonans.	Caccabis saxatilis.
Gallinula chloropus.	Caccabis rubra.	Bonasa europæa.
Anser ferus, &c.		

These exhibitions are all classed in the Agricultural Section (Class 3). In the Class of Surgical Instruments (Class 17, No. 1747), M. Lefevre, a well-known French taxidermist, has some samples of his trade, but not much that calls for remark. The equally well-known E. Parzudaki (No. 1754) devotes his energies to beasts instead of birds.

The Société Impériale d'Acclimatation exhibit a series of stuffed specimens, intended to show the principal animals they are attempting to introduce into and acclimatize in France. We do not quite agree with our friends in the 'Gardeners' Chronicle' in considering acclimatization as a "chimera;" but we are inclined to think the term "chimerical" would be well applied to the idea of domesticating *some* of the birds which form part of the series. The essentially arboreal *Craces* and *Penelopæ* will require a very long course of modification before we induce them to breed in our poultry-yards; and the Society do not seem to get on well with *Lophophori*, since the single specimen exhibited is, we believe, the male received from the Zoological Society of London, which they have unfortunately lost.

In the French colonies, M. Belanger, Director of the Botanical Garden of St. Pierre in Martinique, exhibits a small series of the birds of that island, nicely mounted by Verreaux. The species, as far as we can recognize them without handling and comparison, are—

Margarops ——?
Dendrœca petechia.
Setophaga ruticilla.
Thryothorus, sp.?
Certhiola flaveola?

Euphonia flavifrons.
Saltator martinicensis.
Tiaris jacarini.
Loxigilla noctis.
Icterus bonanæ.

Thamnophilus doliatus.
Tyrannus dominicensis?
Eulampis jugularis.
,, holosericeus.
Orthorhynchus —— ?
Lampornis —— ?
Chloroceryle alcyon.
,, americana.
Astur magnirostris.
Chamæpelia trochila.
Ægialites —— ?
Vanellus —— ?
Tringoïdes macularius.
Tringa maculata.
Rallus, sp.
Porphyrio martinica.
Florida purpurea?
Egretta —— ?
Butorides virescens.
Ardea, sp.
Erismatura dominica.
,, rubida.
Phalacrocorax —— ?
Sula fiber.

But we hope, through the assistance of our esteemed friend, M. Aubry Le Comte, Superintendent of the French Colonial Exhibition, to be able to make a more accurate examination of these birds, and a further special report thereon to 'The Ibis.'

Germany, from whose standing-army of ornithologists we had hoped better things, is absolutely as unaviferous as Greece, unless a smoked Goose-breast from Mecklenburg-Schwerin and numerous piles of down quilts—so abhorred by the British tourist—be considered to form an exception. Yet the smart game-bags and neat bird-cages testify at least to the philornithic taste of the natives in one direction or another. We have not now the pleasure even of contemplating any of those caricatures of humanity by which Würtemberg contributed to the amusement of crowds in the old Exhibition. The Ionian Islands, through Signor Zanoni of Corfu, display some groups of birds, dusty and, we must add, disagreeable, which are perched aloft, exposed to all sorts of vicissitudes, as if the Septinsular delegates, in their would-be independence, scorned the "protecting power" even of a glass shade. Italy has nothing to show in our line, except some injected specimens of the auditory organs of birds, sent by Prof. Gaddi of Modena (Class 17, No. 1291); and neither Japan nor Madagascar, the Netherlands nor Norway, are any better. The guano of Peru may claim to be mentioned here; but Portugal and Rome have not even this questionable advantage. From Russia there is a fine series of *Tetraonidæ*, exhibited by Herr P. Oospensky (No. 591), which contains some interesting examples of the so-called *Tetrao medius*, the commonest, perhaps, of all wild hybrids. Siam shows, among her commodities, edible birds'-nests; but we have looked through Spain and Sweden without discovering as much ornithology as that. Switzerland exhibits the Grebe-skins for which her lakes have long been celebrated; while the United States and Uruguay complete the list, and add two more to the courts we have drawn blank while bird-hunting.

Perhaps it was not to be expected natural history should make any very great show on an occasion of this sort. Still, in a design so vast as an Exhibition of the Works of Industry of all Nations, one would have thought that bird-stuffers would have evinced a greater desire to display their wares, if for no higher purpose than advertising them. We do not know, but we cannot help suspecting that at the last Exhibition no rewards were given to those who competed in taxidermy; and we have already alluded to the prevalent rumour that in the present case certainly no encouragement was held out to the professors of this craft. Yet it cannot be said that the art is altogether unworthy of notice; for if zoology be really a science, the different methods of preserving the objects which illustrate it—many of them, be it remembered, of daily increasing rarity—deserve attention; or if it be only a pastime, it is unquestionably a popular one, since almost every other house in town or country contains some stuffed beast, bird, or fish, and thus, on that ground also, such methods merit anything but neglect. Utilitarianism is not so rife in these days as to influence many persons by its sneers. There is, we know, no fear of our readers not agreeing with us in these general remarks; we are not, therefore, lecturing them; but we would urge them strongly, if another International Exhibition be ever talked of in London, to make sure, by timely activity, that Ornithology at any rate should not appear in the same unsatisfactory state as it now does at Brompton.

June 10, 1862.

XXXII.—*Recent Ornithological Publications.*

1. English Publications.

"What can a bird be that is not drawn from nature?" our readers may be inclined to ask, on seeing the title of Mrs. Blackburn's work*. Alas! there is no necessity to extend our researches into the strange forms described by Le Vaillant, those modern representatives of the Griffons and Martlets of antiquity, so quietly recapitulated by Mr. Gray with the dry interrogatory, "*Nonne avis arte ficta*?" Nor need we go to the amusing specimen lately laid on the table of the Zoological Society—a common Nightjar's tail united to the body and appendages of *Macrodipteryx africanus*; nor to such an instance as the writer observed the other day in a local museum of some repute, of a Bird of Paradise whose feet, lost in action, had been judiciously replaced by a stout pair of Jackdaw's legs. One need only turn over page after page of any of the so-called "popular" works on natural history, such as Cassell's, or even the more carefully illustrated, if not more carefully compiled, serial of Mr. Wood, published by Routledge, to see a vast collection of imaginary shapes and forms, copied from portions of skins and feathers that have been stretched and puckered over a hideously distorted "dummy"—the triumphant conceptions of the deputy subcurator of some borough museum. Remonstrate with the artist who earns his 16*s*. per week by such labours in natural history, and he will reply, "I saw it so in the British Museum!" We may shrug our shoulders, but we dare not contradict his assertion. It has indeed always been a mystery to us, if we do not entrust the restoration of the Chapter House of Westminster to the tender mercies of the churchwardens of St. Margaret's for the time being, nor to the reconstructive ingenuity of the cheapest local contractor, why the spirit of parsimony should have handed over the reconstruction of the most lovely and graceful forms, not of art but of nature, to the ignorance of a journeyman labourer who never saw either the species nor any of its congeners in life, and who has not the remotest idea of its habits or character. In every museum stand gaunt rows of hideous scarecrows to mislead for years the young, and to disgust the naturalist. We see the fruits in our popular works. Spirited as are many of the woodcuts in Wood's 'Natural History,' yet when the artist has not had the advantage of a lesson from a living specimen in the glorious gardens of the Zoological Society, his shapes are indeed "fear-fully and wonderfully made." Look at the dyspeptic Goshawk which with a broken bill does duty for *Steatornis caripensis,*—the ragged urchin, with feathers on end, who passes for a Cat-bird, suggesting some association of ideas between the Cat and a hostile Dog,—the two distorted British Fly-catchers, the lower specimen with its hump-back, and its upturned throat presented to some sacrificial knife (a monstrosity simply unpardonable in the case of so familiar a favourite),—the Norfolk Plover without a neck,—the Pratincole represented as cooling its feet in a stream (!), or the Scissor-bill misfitted with a Puffin's head, as illustrations of what we mean. One cannot even turn over the pages of our old favourite Bewick without a regret that he had not in every instance that knowledge of the living bird which, notwithstanding all the advances in the art of engraving, has preserved to this day the charm of his life-like lines whenever he drew from nature. Had he but once seen the Bittern booming in the marsh, Bewick could never have depicted that horizontal-backed bird whose tradition is carefully preserved in half the museums of England.

---

* 'Birds drawn from Nature.' By Mrs. Hugh Blackburn.

Such works as the modest and unpretending, though careful and laborious, plates of Mrs. Blackburn are invaluable in diffusing a truer knowledge of the attitude and character of the living bird than can be otherwise obtained by the multitudes who never have the happy chance of looking into a Heron's nest, or watching a flock of Gannets on their fishing-ground. A glance at her volume tells at once that all is *from life.* Wisely has the lady-artist "refused," as she tells us in her preface, "to be guided by stuffed specimens, in the belief that drawings *really* from nature (and such only) may be made to give a representation of nature more faithful in most essential points than the stuffed skin itself, even when newly set up by the most skilful workman, and of course in a higher degree preferable to an idealized copy of the usual faded and withered denizen of a glass case." The work includes twenty-three plates, many of them spirited drawings of our commoner birds, but some of them such as southern dwellers in cities seldom have an opportunity of observing in a wild state. A few lines of letterpress explain the circumstances under which each was sketched, which individualizes the interest with which we examine the plates. In the execution of the lithographs there is occasionally a little too much sharpness in the lines of the plumage, as in the Blue Tits, but this minor fault does not detract from the general life-like tone of the drawing. A hypercritical friend of ours has objected to the undulating curve in the neck of the Common Sandpiper; but as the bird was drawn from a living specimen in a cage, and as we have observed the Godwit assume the same posture, we will not dispute Mrs. Blackburn's accuracy. The nest placed in a bank is an unusual locality for a Sandpiper; but since we ourselves once knew of a Snipe building in a gooseberry bush, when a flood had lodged a quantity of straw and weeds on its lower branches, we cannot see much difficulty in the circumstance.

The second plate, the "Solan Geese Fishing," is very spirited, and represents a scene not before engraved, though well described by Mr. Couch in his 'Fauna of Cornwall.' We have watched the birds drop in this manner under the bows of a yacht while at anchor in the Bay of Tangiers, and, after pursuing their prey under water, emerge with it at the other side of the vessel. Among the most spirited sketches in the volume are those of the Common Guillemot (where Mrs. Blackburn has admirably caught the startled and confused attitude of the bird, when suddenly surprised by a boat), the callow nestlings and eggs of the Black Guillemot, and the shivering and half-benumbed Redwing. The Hedge-Sparrow threads his way through a thorn-bush with the gentle ease of secure familiarity; and the family party of Whinchats, with the father balancing himself on the top of a bunch of furze-blossom, is admirable. The authoress wishes us good-night with an appropriate scene—a group of Herons on Lochiel. The tide is coming in; it is scarcely time to commence fishing, and the Herons while away the idle half-hour in a characteristic group on a bed of shingle, assuming the various easy postures of Heron-life.

We cannot conclude this short notice of Mrs. Hugh Blackburn's drawings without a remark on the genuine and delicate humanity, which shows how keenly a lady may pursue the study of ornithology without acquiring any of the unfeminine indifference to animal life which is sometimes attributed to the sportsman. Her Black Guillemot is caught on the nest, and, when he has stood for his portrait, is kindly restored to his family. Though advantage is taken of the Sandpiper's maternal devotion to entrap her, for a time, into a cage where her brood has been already placed, yet all are returned unharmed to their free home. If the gardener, in protecting his gooseberries, is allowed to shoot the Ring-Ouzels, the Willow-Warblers find a kind protectress. Even the Heron who has given us his portrait, and was captured in a hard frost, was returned, after being indulged with a fortnight's fishing in a foot-pail in the College of Glasgow, to the place whence he had been taken, so soon as the mild weather set in. We have heard young ladies, who would have regarded ornithology as a rude, masculine pursuit, fit only for their sportsmen brothers, inquire with interest the best mode of annihilating beautiful butterfly-life, and we have seen them impale beetles without a shudder. Many of our fair friends will recount the whole flora of their county, while they know not the difference between a Finch and a Warbler. To such we commend Mrs. Blackburn's sketches as an example of what a lady may do without either gun or bird-butchery; and we take leave of our authoress with the sincere hope that the appreciation of the public may encourage her to continue her truthful series of 'Birds Drawn from Nature.'

2. German Publications.

Herr Bädeker's oological work*, to the utility of which we have frequently borne witness, has attained its seventh number. It is stated that Dr. A. Brehm has received from two naturalists in Spain, MM. Villanova and Graëlls, information corroborating the account he formerly gave ('Journ. f. Ornith,' 1853, p. 144, and 'Zoologist,' xi. p. 3987) of the parasitic nesting-habits of *Oxylophus glandarius*, and to the accuracy of which some of our friends have been disposed to demur ('Ibis,' 1859, pp. 79 and 316). In Spain, the Common Magpie (*Pica caudata*) has generally the doubtful honour of being chosen to act as foster-mother to the infant Cuckoos. We would observe, in reference to the notice of *Ampelis garrulus,* that Dr. E. Nylander *did not himself find* a nest of that bird on the Island of Ajos, at the head of the Gulf of Bothnia, in 1857. The manner in which he became possessed of the specimens alluded to has been already related in our pages ('Ibis,' 1861, p. 100).

---

* Die Eier der Europaischen Vögel, &c.

The folio plates of Dr. Anton Fritsch's work* on the Birds of Europe have now reached their eighth part, and the accompanying letter-press its third part. The figures given are reduced in size to one-third of the natural dimensions of the birds. They are printed in colours, and give us very favourable ideas of what may be eventually accomplished by this process. Indeed, the representations of some of the larger birds (we would specify those of the game-birds, pls. 29, 30, 31) are very good, and quite sufficiently accurate for a popular work of the kind. We suspect the so-called *Garrulus krynickii* (pl. 27. fig. 11) is nothing more than the Algerian *Garrulus cervicalis,* which the Parisian dealers are so fond of palming off as veritable European specimens of the second European species of Jay. The *Tetraogallus* figured is certainly the common Indian *T. himalayensis,* and not the rarer *T. caucasicus,* which alone of the group has some claim to a place in the Fauna of Europe. We are glad, however, to see the European Blue-pie rightly distinguished as *Cyanopica cooki,* instead of being left confounded with the Siberian *C. cyanea.*

In the appendix to the 'Reise nach Island†,' just published, by Herr William Preyer and Dr. Ferdinand Zirkel, will be found a list of the birds of that island, compiled by the first-named of these gentlemen. As a contribution to the ornithology of one of the stepping-stones between the Old and New World, it is of course acceptable; but we cannot say that much discrimination has been shown in preparing it, or that any very great addition to our knowledge of the subject has been made. The particular species of Swans and Geese which occur in Iceland are still far from being determined with precision; and whether the more remote districts of the country do or do not afford a breeding-ground for some of those Waders of which the eggs are the *desideratissima* of the oologist must yet be regarded an open question. The reasons which have induced Herr Preyer to include one or two species in his list, as *Tringa ochropus* (*Gmelin*, not "*Tem.*") and *Fuligula rufina*, are of the very slightest value. The appearance of *Ruticilla tithys* on Videy is singular, but we do not think the author's supposition that it was nesting is a very probable one. So also is the occurrence of our garden-favourite, *Turdus merula*, so long ago as 1823; and this statement is confirmed by a recent English traveller, Mr. Metcalfe, who mentions a similar instance —though, not having 'The Oxonian in Iceland' at hand, we are unable to quote the passage. We believe Herr Preyer's suggestion (p. 393, *note*) that the Wren of Iceland is identical with that of the Faröes, *Troglodytes borealis* (Fischer, J. f. O. 1861, p. 14), rather than with our own *T. parvulus*, to be correct. This, of course, might have been expected; but that it is unsafe to predicate on such matters is shown by the undoubted fact that the black-and-white Wagtail of Iceland is the continental *Motacilla alba*, and not, as one would have been inclined to suppose, our *M. yarrelli*.

---

* Naturgeschichte der Vögel Europa's von Med. Dr. Anton Fritsch, Custos der Zoologischen Abtheilung am Museum des Königreichs Böhmen. Prag, 1859–62.

† Reise nach Island in Sommer 1860. Mit wissenschaftlichen Anhängen. Von William Preyer und Dr. Ferdinand Zirkel. Leipzig, 1862, 1 vol. 8vo, pp. 500.

The author seeks to distinguish himself by describing a Skua's skin obtained by him at Reykjavik as belonging to a new species, to which he applies the denomination of *Lestris thuliaca* (p. 418). Not having seen his specimen, we, of course, cannot say that he is not justified in so doing; but, if so, he should certainly have furnished us with more efficient characters than those he has given as diagnostic. We have taken some pains to understand them, and the conclusion we have arrived at is that *Lestris thuliaca* is founded on an example of the dark-complexioned variety of *L. richardsoni*, slightly mottled with white on the shoulders, belly, and chin! Though an additional knot in the tangled nomenclature of the smaller European Skuas is a positive crime, we are ready to forgive it for Herr Preyer's ingenious explanation of Temminck's specific name *pomarinus,* which, he says, ought to be written *pomarhinus* [sc. *pomatorhinus*], being derived from πῶμα, *operculum,* and ῥὶν, *nasus.* Altogether the author swells the number of properly Icelandic birds to 82, giving besides 21 more as stragglers; but of the former number some possess very questionable specific value, as *Corvus leucophæus* and *Tringa schinzi* (Brehm). The avi-fauna of Iceland is still far from being accurately determined. From the excellent writings of Faber, supplemented by Mr. Proctor's communications to the works of our own Yarrell and Hewitson and the instructive papers by Dr. Krüper in the 'Naumannia' for 1857, we know its almost exclusively palæarctic character; indeed, but three species, *Lagopus islandorum,* Fab., *Anas histrionica,* and *A. barrovii,* are met with there which do not inhabit some parts of Europe; but, as to the details of its ornithology, we are sure we have still much to learn. For the sake of those of our readers who are interested in the history of the Great Auk, we must not omit to add that Herr Preyer announces that he is preparing a separate work upon it.

XXXIII.—*Letters, Extracts from Correspondence, Notices, &c.*

We have received the following letters:—

18 Bessborough Street, Pimlico, S.W.,
May 27, 1862.

To the Editor of 'The Ibis.'

Sir,—In your Number for April 1862 I find a most interesting paper, by Dr. J. Reinhardt, on the affinities of the *Balæniceps,* translated from the 'Transactions' of the Royal Danish Scientific Society for April 1861, pp. 135–154. At the time when this was written, Professor Reinhardt had seen only the abstract of my paper on the bird in question; but, as I learn from my friend Mr. Alfred Newton, he has, since that time, done me the honour to go through the weary length of my larger memoir. We are, however, still separated in opinion; for whilst Dr. Reinhardt considers the bird to be a large Scopine Stork, I make it a gigantic Cancromine Heron. I believe that an hour's mutual converse would bring us to one mind—he yielding to me so much of the Heron and Boatbill as there is in its composition, whilst I should confess (on fuller showing) that I had underrated its relationships to the hook-billed Umbre, and to that long-faced carrion-, cat-, and toad-eating bird, the Adjutant. I know nothing of the anatomy of the *Scopus,* save what I have learned from this invaluable paper of Dr. Reinhardt's, and can scarcely imagine how much of the Umbre I should have found in the skeleton of the *Balæniceps.* Moreover, I do read some tokens of the Adjutant and Marabou in the large composition of this great boat-billed bird.

Nevertheless a careful study of Professor Reinhardt's paper, both as to the plumage and the osteology of the *Balæniceps,* only satisfies me that I was right in seizing hold of my old captive and favourite, the Grey Heron, and making him the central type not only of the *Ardeinæ* proper, but also of the *Ciconiæ, Leptoptili, Mycteriæ,* and *Anastomi,* as well as *Cancroma, Scopus,* and the big link which connects these two aberrants—the *Balæniceps.* I shall not, however, trouble you with many details at present, but I shall wait until I can bring a better-furnished mind to bear upon the subject.

I have, however, to notice that, in my description of the sternum of the *Balæniceps* (Trans. Zool. Soc. vol. iv. part 7. p. 338), I unfortunately forgot to mention that the coracoids do not overlap each other in the *Balæniceps,* as they do in the true Herons, including the Boatbill. I believe that Professor Reinhardt lays stress upon this, whilst I, although fully acquainted with the fact, put it down simply to "teleology," this condition occurring abruptly sometimes in a family, as in the Osprey (*Pandion haliaëtus*), and being nothing more than an allowable thing, at any time, if the anterior margin of the sternum should happen to be too narrow for the coracoids. I learn (from a letter of Dr. Reinhardt to his excellent translator, Mr. A. Newton) that *Scopus* agrees with *Leptoptilus* and other Ciconians in this matter. But it is a character that will not hold; for in the skeleton of *Ciconia alba* in the museum of the Royal College of Surgeons (No. 1304) the coracoids overlap, and I possess a drawing, made by me in 1847, showing that they do so.

Another point of difference between the *Balæniceps* and the

Herons (including *Cancroma*) is in the development of a strong interorbital septum. Now, this partly depends upon what I would crave to call "giganticism" (big birds generally having a good wall placed between their eyes), and partly upon the necessary abortion of the cranio-facial axis between the eyes when the *relative* size of the eyeballs is very great. If *Scopus* has a strong septum, I will be bold to prophesy that he will be found to have small eyes.

There is another point which I would mention, and that is, that if the pelvis of the *Balæniceps* does not agree with *Cancroma*, and does agree with *Scopus*, all that can be made of that is, that *Leptoptilus*, *Ciconia*, and *Cancroma* all agree in having the ilia project further backwards than the ischia, whilst the contrary is the case in *Scopus*, *Balæniceps*, *Ardea*, and *Botaurus*. As to the hook on the end of the bill, it certainly does exist, although feebly, in *Cancroma*, the difference between it and the *Balæniceps* being just such as obtains between *Caprimulgus* and *Podargus*.

The affinities of the *Balæniceps* do not, however, exhaust themselves on the congeners of the bird; they spread themselves into all the adjacent region of the, as yet, badly classified "Grallatores." It has, however, characters of its own, which it has borrowed from no other bird, as well as isomorphisms or resemblances of structure, giving it an apparent affinity with far-off groups.

If Professor Reinhardt has the advantage of possessing the skeleton of the *Scopus*, I glory over him in having seen the living *Balænicipites*; and as I am not under the necessity of dissecting my cousins when I would prove their likeness to my father or my mother, so, having stood face to face with the *Balæniceps*, I had not to wish him dead that I might feel certain that he was a Heron.

Note.—In my paper (p. 337) I have spoken of the ilium and ischium terminating in the same vertical line; I find, however, that the ilium does really project a line or two beyond the ischium—not so much, however, as in the Boat-bill and the Adjutant.

I am, Sir, yours very truly,

W. K. Parker.

Place Bellecour, 35, à Lyon,
le 15 Avril, 1862.

Monsieur,—Depuis longtemps je désirais vous envoyer quelques notices ornithologiques pour votre 'Magazine of Ornithology.' J'espère que les observations suivantes ne seront pas tout à fait indignes de 'l'Ibis.'

I.

La Spatule femelle dont j'ai parlé dans la 'Naumannia,' v. p. 401, et dont j'ai signalé la conformation remarquable de la trachée-artère qui était semblable à celle du mâle, m'avait conduit à considérer cet exemplaire comme une très vieille femelle qui prenait les attributs du mâle, et offrait par là une certaine analogie avec les femelles de Faisans qui revêtent un plumage qui n'est pas celui de leur sexe. J'avais été conduit à cette hypothèse par la raison que l'oiseau en question était adulte, et que les auteurs que j'avais pu consulter affirment que dans cette espèce le mâle seul offre une anomalie de conformation dans cet organe. Je regrette de n'avoir pas été à même de disséquer un certain nombre de Spatules, car je commence à supposer que dans cette espèce les deux sexes ne diffèrent en rien sous ce rapport anatomique ainsi qu'on l'avait avancé. Ce qui m'a conduit à cette dernière hypothèse, c'est l'examen d'une Grue Cendrée femelle que j'ai reçue le 25 Mars 1862, et que j'ai disséquée. Tous les auteurs que j'ai à ma disposition considèrent le mâle de la Grue cendrée comme étant seul doué d'une trachée à circonvolutions. L'individu en question offre un exemple du contraire, et ce qu'il y a de plus remarquable c'est que c'est une femelle qui n'est pas encore adulte, puisque son plumage offre quelques restes des teintes roussâtres du jeune âge, que les panaches des ailes sont peu développés, et que le sommet de la tête n'est pas rouge. Ne pourrait-on pas conclure de ce fait que l'anatomie de ces oiseaux n'a pas été assez bien étudiée, ce qu'à tout âge les deux sexes sont pourvus d'une trachée semblable ?

II.

L'une des espèces d'oiseaux d'Europe que l'on voit le plus rarement dans nos volières est sans contredit le *Tetrao urogallus.*

J'avais toujours pensé jusqu'à ces derniers temps que cette espèce était d'un naturel trop farouche pour supporter la captivité, et que son tempérament et son genre de nourriture le rendraient impossible à conserver, surtout dans des contrées d'un climat différent de celui où on le rencontre habituellement. J'ai été agréablement surpris en arrivant en Suisse d'apprendre que cet oiseau pouvait très bien vivre en captivité. Un habitant des environs de Balle (Canton de Fribourg), ayant découvert un nid de grand Tétras, en prit les œufs qu'il fit couver par une poule. L'éclosion réussit assez bien, et les jeunes s'élevèrent parfaitement, de telle sorte qu'au printemps suivant (1861) ils devinrent des oiseaux magnifiques. Une particularité qui les distinguait c'était la facilité que l'on avait de les nourrir, et leur familiarité était bien plus grande qu'on aurait pu le présumer ; car loin de chercher à fuir comme le font la plupart des oiseaux que l'on tient renfermés, ils ne paraissaient pas effarouchés lorsqu'on pénétrait dans leur volière, et venaient prendre à la main la nourriture qu'on leur présentait. Ces mêmes oiseaux sont actuellement à Lyon, et constituent un des plus beaux ornements de notre parc de la Tête d'Or. Jusqu'à présent ils ne paraissent pas souffrir du changement de climat, et même on a quelque espérance de les voir se reproduire. Je ne sais si à l'état sauvage les mâles se livrèrent des combats, toujours est-il que deux mâles que l'on avait renfermés dans une même volière, après avoir vécu tout l'hiver en bonne intelligence, se précipitèrent l'un sur l'autre, et que le plus faible aurait succombé si l'on n'était pas venu à temps à son secours. Le vainqueur se promène maintenant autour de la femelle en faisant sa roue et en faisant entendre son chant singulier. Une chose digne de remarque est la grande propreté de ces oiseaux, dont le plumage est aussi intact que celui des Tétras qui sont en liberté. Espérons qu'ils vivront longtemps, et que la chaleur de nos étés ne leur sera point préjudiciable.

III.

Ce n'est pas sans regret que l'on songe à la disparition très probable de l'*Alca impennis*. Aussi est-il intéressant d'en rechercher les traces, et de signaler les musées ou les collections particulières où se trouvent encore quelques exemplaires de cet oiseau et de ses œufs. Tout récemment, dans le 1^er^ cahier de 1862 du 'Journal de Cabanis,' M. W. Preyer a fait l'énumération des collections où l'on voit figurer cette espèce. L'auteur de ce mémoire prie les ornithologistes de vouloir bien compléter sa liste. À ma connaissance l'*Alca impennis* se trouve dans trois collections: 1°, dans celle du pasteur C. L. Brehm à Bensendorf. Lorsque j'ai eu l'honneur de faire la connaissance de cet homme distingué, à Cöthen pendant la réunion des ornithologistes en 1856, je me souviens de lui avoir entendu dire à lui-même qu'il possédait cet oiseau. 2°, dans la collection de la ville de Neuchâtel (Suisse), où l'on en voit un bel exemplaire; 3°, dans celle de Comte Damien Degland, acquise par la ville de Lille après la mort de cet ornithologiste. Je me joindrai à Monsieur Preyer et prierai les ornithologistes anglais de signaler les musées qui en possèdent des exemplaires.

Monsieur W. Passler a donné, dans le 'Journal de Cabanis,' 1^er^ cahier 1860, p. 58, une liste des collections où se trouvent les œufs dont il donne les descriptions. J'ai reçu dernièrement de Monsieur Demeezenaker, ornithologiste à Bergues, deux photographies qui représentent deux œufs d'*Alca impennis* qui sont dans sa collection. L'un d'eux mesure 12 centimètres 5 millimètres sur un diamètre de 8 cent. Le second n'a que 11 cent. 5 mms. sur 8 cent.

Je crois être sur la trace d'un autre exemplaire de cet œuf, Son grand diamètre est de 12 centim. sur 7 cent. 6 mms. Couleur gris-jaunâtre, avec des grosses taches brun-verdâtre, réunies surtout vers le gros bout, et plus petites et très espacées à mesure qu'elles se rapprochent du petit bout. Si vous le désirez, je me ferais un plaisir de vous en envoyer des photographies. Malheureusement les personnes entre les mains de qui il se trouve ne paraissent pas vouloir s'en défaire à aucun prix.

Telles sont, Monsieur, les notes que j'avais à vous communiquer; si vous me faites l'honneur de les insérer dans 'l'Ibis,' j'en

serai tres flatté. Je regrette de ne savoir pas assez d'anglais pour vous éviter la peine de les faire traduire. En attendant, agréez, je vous prie, l'assurance de ma considération distinguée.

Votre dévoué,
LEON OLPH-GALLIARD.

Norwich, June 14th, 1862.

SIR,—Having before recorded the unusual appearance of Shore-Larks (*Otocorys alpestris*) on our coast during the past winter, it may be interesting to some of the readers of 'The Ibis' to learn that another specimen has occurred during the spring migration. This bird (a *male*, like all the others) is now in my possession, and was killed at Yarmouth about the 24th of April. The man who shot it brought it up to Norwich, with several Skylarks and Wagtails killed at the same time, and, not knowing its value, gave it to a birdstuffer in this city, of whom I purchased it directly afterwards. This specimen, as may be supposed from its appearing so late in the spring, had very nearly assumed its full summer plumage. The gorget on the neck and the patches on the cheeks are pure black, and the yellow portions very bright, with the horns clearly developed. It is by no means improbable that this may have been a remnant of that small band, of which the numbers were so thinned on their southward passage down our eastern coast. I am, &c.,

H. STEVENSON.

Letters recently received from Mr. Blyth, dated January 20th last, announce his return on the 6th December last to Calcutta, "after making a great haul of fishes during a fortnight's stay at Akyab." Mr. Blyth subsequently writes:—

"February 2.—Mr. Jerdon has just returned from a fortnight's trip into the Colgong district of the Ganges and Rajamahal. He has obtained at least one new bird, of a new genus akin to *Tephrodornis* and *Hemipus*, with comparatively large legs. He found my *Pratincola leucura* abundant, and obtained a female of *Calliope pectoralis* (the Himalayan species).

"Among his other gatherings Mr. Jerdon obtained a female *Caprimulgus mahrattensis,* Sykes—the first I have ever seen of this species. It is quite new to this part of India.

"March 11th.—With regard to the *Caprimulgidæ* of these countries, one grand error pervades all the books hitherto, viz., the mal-identification of *Podargus cornutus,* Temm., with *Batrachostomus javanensis,* Horsfield. We have a very fine specimen of the former bird, sent to us under that name by the Batavian Society, and it exactly agrees with the figure in the 'Planches Coloriées,' which is copied by Stephens in the continuation of Shaw's 'Zoology.' We have also an excellent specimen of *B. javanensis* from Malacca, equally according with Horsfield's figure of that bird in his 'Zoological Researches in Java.'

"The *Podargus cornutus* is an *Otothrix,* as distinguished from a *Batrachostomus,* and appears to me to be absolutely identical with *O. hodgsoni,* G. R. Gray, P. Z. S. 1859, p. 101, Aves, pl. clii., that plate representing the juvenile plumage, and Temminck's the adult. Mr. Jerdon agrees with me in this opinion. But what is *Podargus crinitus* of Temminck? This, from its name, should be another *Otothrix.* Gould's *B. stellatus* I do not know. Moore, in his list of Cantor's specimens, makes it distinct from *B. javanensis.*

"The *Pod. parvulus* of Temminck I suspect to be identical with my *Batr. affinis,* which is found both in Malacca and Sikhim, and perhaps also in Java, as *O. cornutus* (v. *hodgsoni*) is both from Sikhim and Java.

"*B. moniliger,* nobis, is a good species from Ceylon; and Jerdon suspects that this must be the *Batrachostomus* of peninsular India, which he has heard of, but never seen. He is certain about its existence."

Mr. Swinhoe's last letter, dated Tamsuy in Formosa, January 17th last, says:—

"I am not doing much in birds just now, as we are scarcely settled yet at this new port; but by next month you may hear of my making some progress.

"*Suya striata,* nobis, is common on these hills, and, as I imagine, *Cisticola volitans*; but the latter I have not seen this trip. No news of the wonderful Parrot yet. I think I told you of the three Parrakeets shot at Canton the summer before last, but, at the best, they can only be looked upon as occasional visitants to that neighbourhood. I suspect *Loriculus puniculus* has no more claim to Canton as a *habitat* than have the Lories, the Waxwings, the Peacocks, or the Argus Pheasants that are offered for sale in that city. I could send a fine collection of so-called Chinese birds, if I only had an agent at Hong Kong or Canton to watch the bird-shops; but I never heed the assignation of birds to particular localities, unless I have the authority of some person that has actually met with them in a wild state, and has proofs that they are not caged birds let loose. The Japanese Deer and some other species of *Cervidæ* may be found on the hills of Hong Kong; but we should be very wrong in considering them indigenous there; for if we only take the trouble to inquire, we may learn that several animals of this kind have been set free in that colony by some sport-loving Europeans.

"In passing through Amoy, I met with, for the first time, a fine male of the *Muscicapa hylocharis* of the 'Fauna Japonica'; and as you may like to publish a description of this interesting species, taken from a fresh example, I will transcribe the note from my journal:—

"*Muscicapa hylocharis*, Schlegel, ♂, Amoy, November 27, 1861. Looks at first sight like the male of *Erythrosterna parva*, but there is no white on the tail. Length, 5·1; wing, 2·85; tail, 2·2 in. Bill blackish clove-brown; legs and claws ditto, with paler soles. Inside of the mouth yellowish flesh-colour, with a blackish rim to the tongue. Ear roundish, of the size of the eye, the diameter bone being nearly at right angles to the direction of the bill, and the crescent-shaped operculum placed on the arc furthest from the bill. Throat and breast yellowish robin-colour, rather golden, paler on the axillaries and flanks; pale and mixed with olive over and under the eye, the cheek being mottled with darker olive. Belly and vent white. Upper parts brownish olive-green. Wings and tail hair-brown, the former margined with yellowish ochre, more strongly on the tertiaries, small coverts and secondary coverts.

"*Dissection.*—Œsophagus about ·1 inch wide, enlarging at proventriculus to ·25. Stomach roundish, hard and muscular, not much adpressed, with small lateral tendons; depth and breadth, ·4 in.; length, ·6. Epithelium sienna-coloured, rugose, thin and leathery, containing remains of beetles and amber-yellow oval seeds of some berry. Intestine 6·8 in. long, ·1 to ·15 thick, no cæca discoverable. Heart ·4 in. long, ·2 broad.

"I have been looking through the second volume of Perry's 'Expedition to Japan,' wherein the birds collected in China are enumerated, with short notes on most of them by Mr. Heine. This gentleman, who was artist to the Expedition, I had the pleasure of meeting, and from the love he professed for the feathered tribes, I should have expected fuller remarks on the species he had had the opportunity of seeing in their native haunts. If the few plates of birds in this volume can be looked upon as the best the Americans can produce, I must say they are far behind this age of truthful iconography. If I may be allowed to criticise (and my acquaintance with Chinese birds may justify me, in so far as they are concerned), I will venture on a few remarks.

"*Garrulax perspicillatus,* plate 4. The bill and head of this figure are by far too small in proportion to the size of the bird given, which is a good deal smaller than life-size. The eye in the living bird is hazel.

"*Sturnus cinereus,* plate 5. The head of this figure should be flatter, and the iris white.

"Mr. Heine's reason for the scarcity of birds at Macao is rather erroneous. It is not the Chinese who exterminate the birds at that settlement, but the half-caste Portuguese or Macaese, who sally out in numbers every Sunday, each man and boy armed with a gun, and ruthlessly destroy every small bird they can set eyes on. In Camoens' garden, where guns are not admitted, birds are common enough, and comparatively tame.

"*Artamus fuscus.* I think this species must have been labelled wrong. I question much whether it is found about Macao.

"*Hypothymis cyanomelæna.* What is meant by this species "inhabiting bushes"? If it refers to its occasionally alighting on the tops of bushes, or settling on some exposed branch, it is correct enough. But the species is a pure Flycatcher in habits, and never dreams of creeping about bushes, or even entering them after the manner of Warblers. The remark may well be applied, however, to the next species that follows, *Lusciola cyanura*.

"*Petrocincla manilensis*. I have repeatedly shot specimens of this bird without a tinge of ferruginous on the under-parts, and undistinguishable from examples of *P. pandoo* received from Mr. Blyth; I cannot therefore help agreeing with that gentleman, in thinking that both of the so-called species may be referred to *P. cyanea*, the red tints of the belly and vent being probably attributable to certain climatal causes, as is the case with the different varieties of *Cuculus tenuirostris*.

"*Ixos hæmorrhous*, plate 6. The crest given in this plate is a perfect mistake. The bird has no crest, the black crown-feathers being but of ordinary length.

"*Gallinula chloropus*. I once saw this bird at Amoy. I have since procured a pair at Formosa.

"*Charadrius pluvialis*. This must be a mistake in identification. The Chinese bird, of which I have seen a large number, is undoubtedly referable to *C. virginicus*.

"*Sterna minuta*. This bird is found occasionally on the coast of China; but all the small Terns I have yet seen in Formosa are of some other species—perhaps *S. nereis* of Gould. One would expect to find the Formosan species at Loochoo."

We are indebted to the courtesy of Sir William Hooker for the inspection of a valuable paper furnished to the newly established Institute of Rupert's Land by the editor of 'The Nor'-Wester,' a journal published at Red River Settlement. The writer, the Rev. W. W. Kirkby, therein describes a journey lately performed by him from the Mackenzie River to the Youcan or Jukon. Besides affording some interesting information respecting the Indian tribes, to which this gentleman is a missionary, he gives us the first account we have received of the energetic collector of the Smithsonian Institution, Mr. A. Kennicott, whose expedition was announced by us two years ago ('Ibis,' 1860, pp. 309, 310), and whom he met with at the fort situated at the junction of the Jukon and the Porcupine Rivers. Mr. Kirkby proceeds to say that "he (Mr. Kennicott) delighted me with the assurance that he had met with a vast field, and that his efforts had been crowned with much success, especially in the collection of eggs, many rare and some hitherto unknown ones having been obtained by him; so that the cause of science in that department will be greatly benefited by his labours. Among many others, I noticed the eggs and parent birds of the American Wigeon (*Mareca americana*), Black Duck (*Œdemia americana*), Canvas-back Duck (*Æthyia vallisneria*), Spirit Duck (*Bucephala albeola*), Small Black-head (*Fulix affinis*), Waxwing (*Ampelis garrulus*), Kentucky Warbler (*Oporornis formosus*), Trumpeter Swan (*Cygnus buccinator*), Duck Hawk (*Falco anatum*), and two species of *Junco*. With the exception of the Waxwing, however, there were few that have not been obtained in other parts of the district by the persevering zeal of Mr. Ross, the gentleman in charge; and this bird, I have since learned, nested numerously in the vicinity of my out-station at Beer Lake."

The foregoing account has been since confirmed by a letter we have received from Prof. Baird. Besides the species enumerated above, he mentions that this unwearied collector has procured eggs of *Pelionetta perspicillata, Melanetta velvetina, Cygnus buccinator*, &c. He adds, that "Mr. Kennicott expected to spend the present spring in the Barren-grounds east of the mouth of the Mackenzie, where he hoped to do well among the Waders. We have hitherto found it very difficult to get these birds, the only ones being *Actrodromas minutilla, Ereunetes pusillus, Totanus flavipes, Gallinago wilsoni, Lobipes hyperboreus*, and the small Plovers, not forgetting the ubiquitous and provoking *Tringoïdes macularius*." Professor Baird also tells us that "the Greenland Expedition ['Ibis,' *loc. cit.*] did nothing of importance in the line of eggs, *Larus glaucus, Mergulus alle*, and *Falco candicans* being the principal. Neither *Calidris* nor *Xema sabini*; the latter I hope to get from Lake Winnipeg, where it breeds. We had a fine bird thence, killed June 1859."

THE IBIS.

No. XVI. OCTOBER 1862.

XXXIV.—*On the Ornithology of Northern Japan.*

By Capt. BLAKISTON.

(Plate X.)

A COUPLE of sleepless nights on shore at Shanghai from the effects of mosquitos and the intense heat of a Chinese July, after a five months' cruise on the Yang-tsze Kiang, were sufficient to cause me to decide on migrating to cooler regions. There were frequent chances for the southern parts of Japan; but, as luck would have it, an opportunity offered of a passage to the little-frequented port of Hakodadi, in the northern island "Yesso;" and through the kindness of Mr. Webb (the head of the firm of "Dent & Co." at Shanghai), a gentleman well known to the ornithological world, I was allowed to take a passage in the good barque 'Eva,' commanded by Captain David Scott. The night of the 13th July, 1861, found us anchored in the outer roads off Woosung, at the mouth of the Shanghai river, and the day following we got clear of the muddy current of the "Great River" into blue water. Favoured by the south-west monsoon and fair weather, we made good progress for several days, and passing through the Strait of the Corea, entered the Sea of Japan on the 17th. Beyond this the monsoon was feeble; but the "Kuro-Siwo," a branch of the "North-Pacific Gulf-stream," which sets through these straits and up the sea, helped us along in the right direction.

Sea voyages in general have but little interest to the ornithologist, and ours on this occasion was no exception to the rule. A few sea-birds only were seen, but not identified; and a solitary Dove flew on board, and remained about the vessel for some time, one morning. At certain seasons, however, on this passage, land-birds are met with in numbers; and Captain Scott, during a voyage from China in the month of October, caught some Quails, several of which he kept alive for a few days. The line of migration is probably between the Corea and Nipon, the largest island of the Japanese group.

On the 25th of July we sighted a small rocky island called "Ku-sima" (*sima* meaning island, and *yama* mountain), near the western entrance of the Strait of Tsugar, which separates Yesso from Nipon; and working up against a stiff breeze, we got under the shelter of the high lands for the night following. Next morning we commenced beating through "the Straits," and, the set of the current being strongly in our favour, we, by successive tacks, made good progress towards the Pacific. Passing Matsumai (formerly the chief town of Yesso) early in the forenoon, we came up to Tsiuka Point at sunset, and by nine P.M. were at the entrance of the Bay of Hakodadi, where it fell calm. This prevented our reaching the anchorage off the town until four the next morning. The harbour was crowded with saucer-shaped native junks, clumsy, unpainted, and primitive-looking craft, each with one heavy single mast, used for hoisting a large square sail of cotton canvas. Each of them was secured by at least three or four anchors, and had half-a-dozen more grapple-looking affairs ready at the bows for use in case of bad weather. Each and every one of these junks was so much alike another that, were it not for a slight disparity in size, they might all have been supposed to have been cast in one mould. Numerous boats, with creaking oars, were being pulled about by naked Japanese, engaged in loading and unloading junks, while the small "caique"-shaped canoes of the fishermen dotted the harbour in all directions. The only foreign vessel ("*foreign*" being generally applied to European and American persons and things in the far East), besides our vessel the 'Eva,' was a Russian despatch war-steamer, which lay in deeper water than the junks. We took up our berth near her, and discovered that she was on the point of leaving for one of the new ports on the lately acquired coast of Manchouria. A great number of Gulls were disporting themselves over the placid water of the harbour, and collecting the refuse thrown overboard from the junks, or pieces of bait discarded by the fishermen; and as a thick fog precluded a distinct view of the shore, I watched these birds with much interest. Although varying very considerably in plumage, they were all of one kind, *Larus melanurus*—the only species, in fact, as far as my observations went, that spends the summer at Hakodadi. This is, moreover, the only Gull given in the 'Fauna Japonica' as inhabiting the Japanese islands; but Commodore Perry's United States Expedition, which visited the country in 1854 (the ornithological Report on which, by Mr. Cassin, will be found in vol. ii. of the Government publication), has added *L. ichthyaëtus* (Pallas), besides a single immature specimen of what was considered to be *L. brunneicephalus*, collected in the Bay of Yedo, on the east coast. The first was said to be abundant in March. In October I observed, at Hakodadi, two or three of a large species of Gull, all white, except the back and coverts of the wings, which were of a light slate-colour. On one or two occasions I also saw a Tern, certainly not *S. fuliginosa*, figured in the 'Fauna Japonica,' but a small slate-blue and white species.

I think I have here enumerated all the *Laridæ* known as belonging to Japan. Their paucity induces me to believe that there is here a fine field of discovery open to any persevering ornithologist who may feel inclined to make a sojourn among the islands of this interesting group. In fact, I consider the ornithology of Japan to be very imperfectly worked up. Siebold's specimens are all from the south, and probably most from Kiusu (the island on which Nagasaki is situated), while the fact of his having obtained them all, or nearly all, from the natives accounts for the want of information concerning habits and habitats in the 'Fauna Japonica,' otherwise so fine a production. All that is known of the ornithology of Northern Japan specially is from the Expedition of Commodore Perry, already mentioned (most of the birds in which collection were obtained at Hakodadi, and are referred to in the following list), and from the later collections made by

Mr. Maximovitch and myself. Mr. Maximovitch is a naturalist, but better known perhaps as a botanist, in the employ of the Russian Government, who, having been in Siberia and on the Amoor, was at Hakodadi during my stay there. His residence was of much longer duration than my own, and, as will be observed, the existence of many species is given entirely on his authority. I have, however, taken care to note when the fact is doubtful; because his only means of naming specimens at the time was by referring to a copy of the 'Fauna Japonica,' in the possession of the Russian Consul. Besides, most of his birds were packed up for going to St. Petersburg when I made his acquaintance, and consequently I had not an opportunity of examining them. He will publish the results of his labours on his return to Russia.

Hakodadi is situated at the southern extremity of Yesso, the northernmost island of the Japan group, on a small mountain peninsula jutting into the Strait of Tsugar, and is connected with the mainland by a narrow sandy isthmus, on the eastern shore of which break the rollers from the broad Pacific, while it forms a fine land-locked bay, and shelters a convenient harbour, on the other. The peninsula is a mountain rising 1100 feet above the sea, and is called "Hakodadi Head." On three sides its slopes are precipitous, and an iron-bound coast gives it such natural strength that it might, with little labour, be converted into a Gibraltar. In fact, most visitors are struck with the natural similarity of the place, on a small scale, to the gate of the Mediterranean. On the northern side is the town, the present seat of the Government of the island of Yesso, and the residence of the Consuls of Russia, England, and America, and of a few merchants of the two latter countries. It is small, but rapidly increasing in mercantile importance. The readers of 'The Ibis' will not care to know much concerning how and why this is so, nor would statistics of its trade in dried fish, shell-fish, sea-weed, oil, and timber, or the natural resources of the adjoining country in the way of coal, lead, iron, or sulphur, be of much interest to ornithologists; and therefore it will suffice to say that the town is a collection of low wooden houses, overtopped with the shining tiled roofs of a few temples, and broken in its monotony by some black, sombre-looking Government establishments. A few houses straggle up the mountain-side, whose rugged steep near its summit forms an admirable contrast to a thick forest of cedars and pines clothing its northern face. The Russian Consulate is a large imposing building, situate at one corner of this wood, and painted white; and this mark of foreign intervention is being increased by the addition of a Russian Hospital, and the British Consulate which is being built alongside.

A stranger landing from China is at once struck with the comparative wideness of the principal streets; but he cannot but notice that the ingenious Japanese, instead of paving or macadamizing them with stones, leave them to the care of an ever-watchful Providence, and pile the stones on the house-tops to keep the shingles (wooden tiles) from being blown away by the blasts of the typhoons which occasionally sweep over. The lowness of the houses is to be accounted for otherwise, namely, by the occurrence of earthquakes. Probably before you have taken many steps on the dry land of Yesso, you will have been made aware of the principal occupation of the inhabitants, and of one of the sources of wealth of Hakodadi, by the all-pervading odour of drying fish and sea-weed; and if an ornithologist, you may repent that you had not, in your earlier life, rather turned your attention to "sea-side studies," on finding yourself everywhere surrounded by clams, cockles, kelp, and cuttle-fish. But never mind!—cheer up! Look at the fine mountain country across the bay to the northward—the thickly wooded hill-sides where sport Woodpeckers of many hues, Jays, Nutcrackers, and Wood Grouse. Turn to the fine fern-covered plains, the haunts of Quail, Larks, and the more obscure but not the less interesting Buntings and their congeners. See oases of clumps of trees clustered round the dwellings or gardens of the scattered villages, where you will find various kinds of warblers, Thrushes of several species, and other winged songsters little behind the most melodious of your own country. Observe the Black-winged Kite as he sweeps along the sea-beach, and the Buzzard and Harrier as they course the margins of lakes or hover over the reed-filled swamps, where Ducks and Teal conceal themselves in quiet till the shades of evening remind them of their wonted habit to visit some distant feeding-ground. Then, again, glancing towards the rocky shore, Cormorants in numbers may be seen perched on the ledges of the cliffs, which have become whitened from their constant occupation. Swallows are skimming over the ponds, or dipping in the brook-like streams which course the lower lands and abound in excellent trout and other fish. A Shrike perched on a topmost branch awaits the coming of some choice kind of winged insect, which his eagle-eye detects from afar; but above all soars

FALCO PEREGRINUS, Linn. *F. communis,* Faun. Jap. p. 1.

I shot a male of the Peregrine Falcon on the summit of Hakodadi Head, on the 7th August. Mr. J. H. Gurney, who has kindly examined all the *Accipitres* of my collection, pronounces the specimen to be identical with the Peregrine of Europe.

ACCIPITER NISUS. *Astur* (*Nisus*) *nisus,* Faun. Jap. p. 4.

My specimen of this Hawk was obtained from a native bird-catcher, but I have no reason to think that it was brought from any distant locality; in fact, the Japanese at Hakodadi, although passionately fond of keeping caged birds, confine themselves almost entirely to their native feathered friends.

BUTEO JAPONICUS, Bp.

Only a young individual of this Buzzard was procured: its sex is doubtful. I shot it in September, near a small village called Kamida, about two miles round the shore of the bay from Hakodadi. As it was by itself, and I did not recognize the species on any other occasion, I am unable to do more than note its occurrence. This is the case with many of the birds here enumerated, and therefore I may as well state at once that, considering that my stay would be but brief, I occupied myself more in collecting species new to me than in determining the abundance or scarcity, or studying the habits of those I had previously obtained.

MILVUS MELANOTIS, Temm. & Schl., Faun. Jap. p. 14, pl. v.

A single specimen of the Black-winged Kite was selected from among a number killed. It was a female, and measured 26½ inches in length, and the wing 19 inches. The others were young males, and measured 25 inches, and from 18 to 19 inches in the wings. They were nearly all identical, but darker than the female, particularly on the under parts, which were much less rufous. The colour of the cere and feet, being light-blue lead, differs from the plate in the 'Fauna Japonica.'

The occasion of my shooting several of these birds was during an ornithological excursion which I made, in company with one of the gentlemen of the British Consulate, round the shore of Hakodadi Bay, with the intention of doing something among the shore birds. We commenced soon after we got clear of the town by a terrible hunt after a Kite, which we wounded when flying over our heads. Soon after this we shot a Swallow (*Hirundo javanica*) which I had not before procured. We then pulled off our boots and socks, and, tucking up our trousers, walked along the sandy beach, generally in the water for the sake of coolness; for although there was a little breeze from seaward, the August rays of the sun made themselves felt. We were not long unrewarded; for, where a small creek emptied itself into the bay, we came upon some Sandpipers, and managed to bag a couple of Temminck's Stints, also *Tringa crassirostris*, a species, by the way, very like the Knot and the Kentish Plover. We still continued along the beach, and a Black-winged Kite was brought down. No sooner, however, had he fallen than another came over and was dropped upon the sandy shore; then another and another, until, without having moved from where we stood, we had five of these birds on the ground at once. After the slaughter, we set to work to pick up the slain. We had a small Japanese boy with us, who carried my collecting-bag and box; but as he was already pretty well loaded with our heavy boots and the smaller birds, we made the Kites into a bundle, which I shouldered. It would have done many an ornithologist good to have seen us, trudging homewards without shoes, stockings, or coats, and followed by our faithful "ankow" (boy). When we reached Kamida, the village previously spoken of, we stopped at a native house of call, where we procured a cup of Japanese tea, and then went off for a bathe in the creek. But our ornithological adventures had not ended, for we came upon some Ducks while bathing; and my friend started off in chase, perfectly naked, wading up the middle of the stream, gun in hand, with the water nearly to his armpits; he, however, did not get a shot. After this we walked into the town. The effect of the sun and salt water, from having walked so long with bare legs, did not wear off for some days; and we felt as if we had had mustard-plasters applied to our shins and calves, which kept alive in our recollection for some time our ornithological walk.

I must conclude my notes on the *Falconidæ* by mentioning, that although I frequently observed Harriers in the neighbourhood of Hakodadi in the autumn, and some in the fine slate-and-white plumage of the adults, yet I did not shoot one. In like manner, on a few occasions I observed Eagles, and two young ones were kept alive by a gentleman and sent to Shanghai. Their plumage was dark chocolate and black, with horn-coloured bill, and feet straw-colour. Of Owls I did not preserve a single specimen; but Mr. Maximovitch considers that among his collection he had *Strix nyctea, Otus semitorques*, and *Scops japonicus*, while I myself had three in confinement for some days. One of them was a small-eared species, with yellow eyes; another, a medium-sized-eared one, also with yellow eyes; and a third, a small species with reddish eyes. On another occasion, while on an excursion, when we slept near the foot of the volcano of Comanataki, I saw a large kind of Owl at night.

HIRUNDO URBICA, Linn.

A male specimen, shot at Hakodadi in March, among my collection, does not seem to differ at all from the Common Martin of England.

HIRUNDO JAVANICA, Sparrm. *Hirundo rustica*, F. J. p. 31.

The specimen of this Swallow is a young one killed in August.

With regard to other *Hirundines* which inhabit Northern Japan, Mr. Maximovitch includes *H. alpestris japonica* of the 'Fauna Japonica,' as identified by the figure in that work. Besides, I frequently saw a large species of Swift, having a white rump, as late as the 10th of October; but although I went several times to the summit of the peak at Hakodadi, where they were often to be found sporting themselves in the higher air, I never succeeded in obtaining a specimen. Dr. Sclater considers that this species may have been *Cypselus vittatus,* or possibly the large *Acanthylis,* called by v. Schrenk *A. caudacuta.* The great body of the Swallows left Hakodadi for the south before the 25th of September.

Lanius bucephalus, Temm. & Schl., Faun. Jap. p. 39, pl. xiv.

I obtained an adult female of this species in August; it has more white on it than that figured in the 'Fauna Japonica' as a female. Mr. Maximovitch considers that he procured another species of Shrike, as well as this one.

Muscicapa cinereo-alba, Temm. & Schl., Faun. Jap. p. 42, pl. xv.

This species is not uncommon in the woods about Hakodadi. Two specimens were procured, one a female, and the other young.

Mr. Maximovitch considers that he obtained *M. hylocharis, M. narcissina,* and *M. cyanomelana,* a Flycatcher with blue wings and tail, figured in the 'Fauna Japonica'; and another, having the back greenish brown, throat and breast brownish yellow, and abdomen white. It was taken to be a female. He also places a male specimen as doubtful, under the name of *Muscipeta principalis.*

Phyllopneuste coronata (Temm. & Schl.). *Ficedula coronata,* F. J. p. 48, pl. xviii.

This lively and delicately coloured warbler is a common summer resident in the north of Japan, and may be found in numbers in the woods on the side of the Hakodadi Head. Two specimens were preserved, one a male and the other probably immature.

Calamoherpe orientalis, Bp. *Salicaria turdoides orientalis,* F. J. p. 50, pl. xxi. b.

This specimen is a young male obtained from a native bird-catcher in the beginning of September. Mr. Maximovitch also collected this bird; and it is included among the specimens from Hakodadi by the United States Expedition under Commodore Perry.

Calamoherpe cantillans (Temm. & Schl.). *Salicaria cantillans,* F. J. p. 52, pl. xx.

A specimen, supposed to be a young female, was obtained in the beginning of September; it differs from the plate in the 'Fauna Japonica' in having only rudimentary bristles. The similarity between this and the preceding species is so great that one may be called only a small edition of the other.

Xanthopygia narcissina (Temm. & Schl.). *Muscicapa narcissina,* F. J. p. 46, pl. xvii. c.

An adult male specimen obtained from a bird-catcher in October.

Nemura cyanura (Temm. & Schl.). *Lusciola cyanura,* F. J. p. 54, pl. xxi.

A male specimen, killed at the end of October.

Mr. Maximovitch includes in his list *Lusciola akahige* of the 'Fauna Japonica'; and *Zosterops japonica* was obtained at Hakodadi by Commodore Perry's Expedition.

Pratincola rubicola (Linn.).

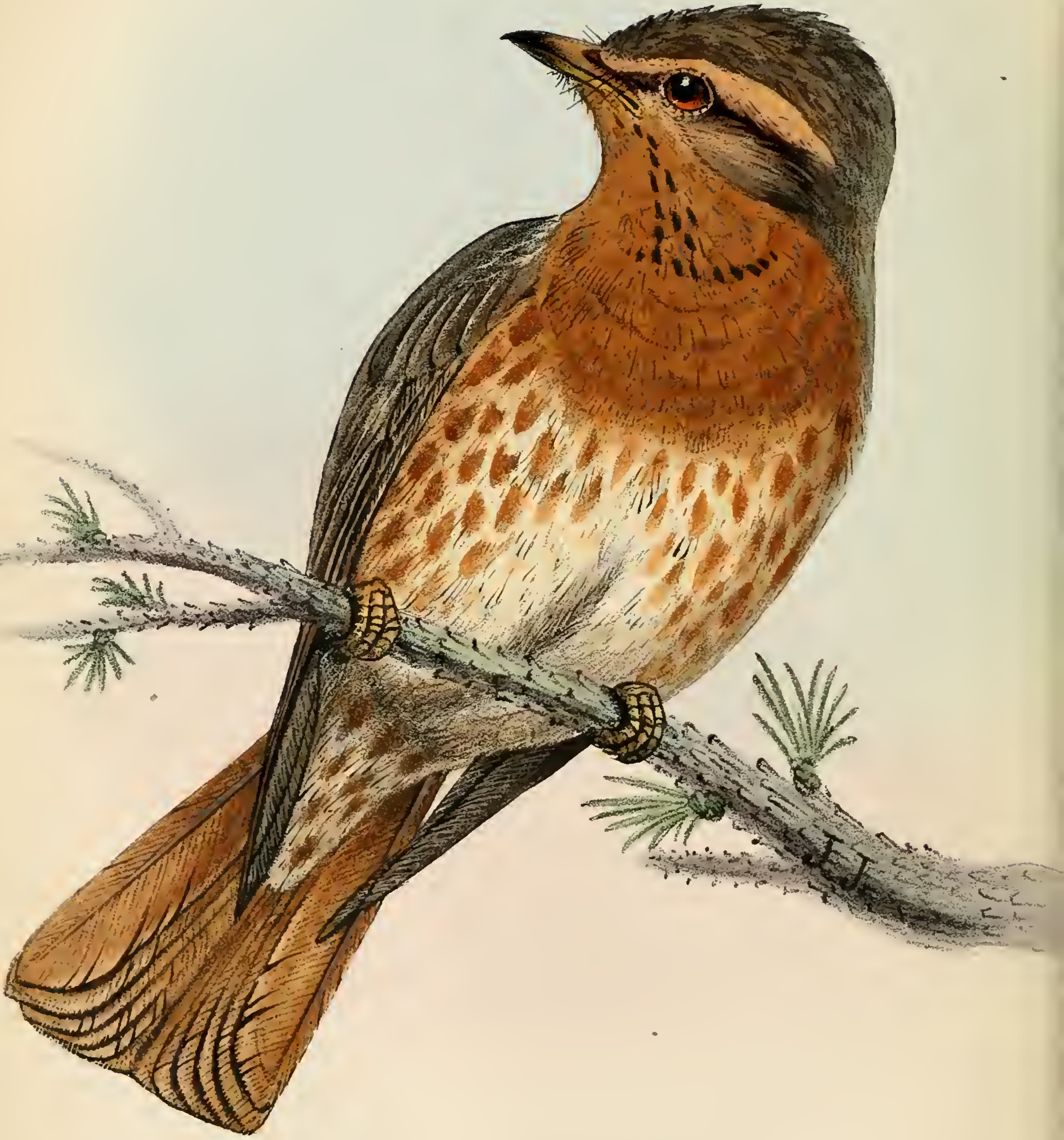
The specimens are two young males, and it is impossible to detect any specific differences between them and our Stonechat, with which they agree exactly in markings. The bird is common among the low scrub in the neighbourhood of the sea, during summer. Mr. Maximovitch had a *Saxicola* brought to him for sale by a Japanese, in October, alive. He described it to me as being like *P. rubicola,* but *larger,* and having a white band over the eye.

Ruticilla aurorea (Pallas). *Lusciola aurorea,* F. J. p. 56, pl. xxi. d.

A male specimen of this Redstart was obtained from a bird-catcher, near the end of October. I think it breeds more to the north.

Motacilla boarula, Linn.

A single specimen was obtained by myself at the end of August; the sex could not be detected. Dr. P. L. Sclater, who has been kind enough to examine all my specimens, and has afforded me great assistance in drawing up this list, cannot detect any differ-



J. Jennens, del et lith

M. & N. Hanhart, Imp^t

TURDUS NAUMANNI.

ence in this specimen from the Grey Wagtail of Europe; and Mr. Cassin has likewise referred to this species a specimen brought by the United States Expedition from Hakodadi.

MOTACILLA LUGENS (Temm. & Schl.). Faun. Jap. p. 60, pl. xxv.

Two specimens were preserved from among a number shot on the 6th of August. They all measured about the same. This bird was also collected at Hakodadi by Commodore Perry's Expedition.

PETROCINCLA MANILLENSIS (Gm.).

A young male of this fine Rock-Thrush was killed in August; it is not an uncommon bird on the rocky peninsula of Hakodadi during summer.

TURDUS CARDIS (Temm. & Schl.). Faun. Jap. p. 65, pl. xxix.

Three specimens of this Thrush, in different states of plumage, were obtained; they agree with the figures in the 'Fauna Japonica.' It seems to be a summer visitor.

TURDUS FUSCATUS, Pallas. *Turdus fuscatus,* Gould, B. Asia, pl. iv. *T. eunomus,* Temm. Pl. Col. 514. *T. naumanni,* Temm. Faun. Jap. p. 61.

My specimen of this fine Thrush was killed at Hakodadi at the end of October; but I observed the bird in considerable numbers in the woods around "Volcano Lake" on the 20th, when they seemed to have but just arrived from the north. Their habits appeared exactly like those of the Missel-Thrush of Europe, and the note of recognition was a similar kind of squeak.

Mr. Maximovitch places another Thrush, *T. daulias,* as doubtful in his collection*.

---

* We have already (Ibis, 1861, p. 278, *note*) recorded our belief in the distinctness of the true *Turdus naumanni* of Temminck's 'Manuel' from *Turdus fuscatus* of Pallas (*Turdus naumanni* of the 'Fauna Japonica'). Capt. Blakiston's specimens of the latter killed in Japan, and of the former obtained at Shanghai, with others in Mr. Gould's collection, aided by the excellent figures and descriptions given of these two oft-confounded species in the new continuation of Naumann's 'Vögel Deutschlands' (*confer* Ibis, 1862, p. 40), have converted our doubts as to the inaccuracy of referring these two birds to one species into a certainty. The adults of these two Thrushes are very different, and recognizable at the first glance; and, if a little care be taken, there is no difficulty in separating

TURDUS AMAUROTIS (Temm. & Schl.). *Orpheus amaurotis* (Faun. Jap. p. 68, pl. xxxi. 6).

Several examples of this bird were brought me by a native birdcatcher, at the end of October, as I was on the point of leaving Hakodadi. I had not observed it earlier in the season, and presume that it summers further north. A female specimen was preserved.

On two or three occasions I observed a Dipper in the mountain streams which abound in the country near Hakodadi. Mr. Maximovitch obtained a specimen, and calls it *Cinclus pallasii* of the 'Fauna Japonica.'

REGULUS JAPONENSIS, Bp.

A specimen, sex unknown, was obtained from a birdcatcher at the end of October. It hardly differs from the European *R. auricapillus*, except in being rather whiter over the eyes and on the face.

Mr. Maximovitch obtained a species of Wren, which he placed, under the name of *Troglodytes vulgaris*, as doubtful; and I myself observed a couple of birds in general appearance like that species, but I was without a gun at the time.

---

the younger birds. In the adult *Turdus naumanni*, the throat is red, with a few black streaks just apparent; in *Turdus fuscatus* (see the figure in Gould's 'Birds of Asia,' part iv.), the throat is white. In the young of both species the throat is thickly striated with triangular blackish markings. But it is only necessary to refer to the figures and descriptions given in the new volume of 'Naumann' to convince oneself of the diversity of these two birds. Mr. Swinhoe's "Red-tailed Field-fare" (Ibis, 1861, p. 332) is probably the true *Turdus naumanni*, and that name is a very good one for this bird, as having the rectrices more or less bright red in all its stages. The accompanying plate (Plate X.) represents an adult male of *Turdus naumanni* in full plumage. The specimen figured was shot near Shanghai, in March 1850, and is now in Mr. Gould's collection. We have been induced to figure it, because Dr. Bree has altogether omitted the bird in his 'History of the Birds of Europe not observed in the British Isles,' although Dr. Blasius tells us he had fourteen examples of various ages and plumages for comparison, from various museums in Germany and Hungary, and that the bird often occurs in the Carpathians, and is not unfrequently brought into the market as "game" at Pesth and Vienna. The specimen figured by Dr. Bree under the name *Turdus naumanni* appears to be a young *Turdus fuscatus*, though we are not informed whence the figure was taken.—ED.

PARUS ATER, Linn.

Two specimens, both taken to be young females, were obtained in October. They cannot be separated from the Cole Tit of Europe.

PARUS KAMTSCHATKENSIS, Bp., Consp. p. 230.

One specimen, sex unknown, hardly differing from the Marsh Tit, is dated 20th October: Dr. Sclater considers it to be this species. Mr. Maximovitch places one of his specimens under the name of *P. palustris,* but it is probably the same as my own. A long-tailed species was also seen.

PARUS RUBIDUS, Temm. & Schl., Faun. Jap. p. 71, pl. xxxv.

A single specimen was selected from a number of this well-marked species; it was obtained from a native birdcatcher. Being a common species and very lively and interesting in confinement, this is a favourite cage-bird with the Japanese. As the autumn draws on and the summer residents somewhat regain the freshness of their plumage, spoiled by the labours of incubation, while other birds which have passed the summer in more northern climes arrive in the neighbourhood of Hakodadi, the professed birdcatchers, boys, children, and others without any fixed occupation, devote themselves to the capture of live birds. Having a cage containing an individual of the species they are specially in quest of, they distribute small branches and twigs smeared with bird-lime in situations most tempting for the inquisitive, and hiding themselves at a short distance, await the successive arrivals of those attracted by the voice or motions of the "'coy," consigning each successive capture to the dark regions of a canvas bag. Others roam about the woods with long and slender bamboo rods, covered near their points with bird-lime, and stealthily approach unsuspicious birds perched on trees or bushes, pushing the bamboo through the leaves as gently as possible until close to the bird, when it is brought quickly in contact with him, and fluttering his wings he becomes securely fastened to the stick and is dragged down. I have seen birds as large as the Green Woodpecker caught in this way, and am only sorry that in the hurry of leaving I neglected to bring away with me any of this superior kind of birdlime, or to gain any knowledge of its composition.

Sitta roseilia, Bp., Consp. p. 227.

A beautiful species of Nuthatch, of which but one specimen was preserved. It was obtained on the 20th October, during my return from a very interesting and pleasant excursion to the active volcano of Comanataki, about five-and-twenty miles to the north of Hakodadi, and near the southern shore of Volcano Bay, an extensive inlet from the eastern or Pacific side, which nearly cuts off the southern portion of the island of Yesso. On this occasion we left Hakodadi (a party of English and Americans, six in number) on the morning of the 17th, on horseback, having pack-animals, in charge of Japanese servants, carrying our provisions and blankets. Skirting the shore of the bay for about four miles, along which, as the tide was out, we were able to ride on the smooth sand-beach, we thence followed the northern road across a broad valley, or rather plain, which lies between ranges of hills on either hand, and is otherwise bounded by the sea. After the fishing-hamlets on the shore, the little villages of neat wooden houses with thatched roofs, surrounded by gardens and coppices, in the midst of well-cultivated land, were refreshing and pleasing to behold. Most of the crops were already housed; but some little rice, owned probably by the more lazy farmers, was not cut, and potatoes, beans, and the long white turnips, called "dygons," were being rapidly got up. We halted in the middle of the day at a large village called "Ono," where we baited our animals and refreshed ourselves on boiled maize-heads, pears, sweet cakes, tea and beer. Soon after leaving this place, we commenced to ascend, the road leading zigzag up the steep slope of a finely wooded ridge, until we reached the crest, where splendid views lay open on both sides. To the northward was the sharp peak and lava-covered sides of the volcano, with a beautiful lake reposing at its foot, and wild forest country all around; while behind us we looked down on the plain we had traversed, and the bay and peninsula of Hakodadi as a panorama. The weather was delightful, bright, clear, and invigorating, and everything augured well for a pleasant excursion. Descending the northern slope of the pass by a road even more steep than that by which we had gained the summit, we soon reached the lake. Keeping the main road to the left, we skirted the shore, the road sometimes cutting off the points by passing through the woods, but coming to the lake again at the next bay, and at each successive return giving us a more beautiful view of the volcano and lake. The latter was reflected in the clear water with a distinctness that I thought I had never seen equalled, while the wooded points jutting out and some small islands gave an uncertainty to the extent of the sheet of water, and allowed scope for the imagination. The country all around was in a state of nature, heavily timbered with oak, ash, elm, beech, poplar, birch, and maple; and these, from the first frosts of the season, which had just occurred, had put on those colours so vividly impressed on the American traveller by the fall-dress of the woods of the more northern parts of that continent, while the weather was the exact counterpart of the "Indian summer." There were great numbers of Ducks on the lake, among which were the Mallard, Pintail, Scoter, Teal, and a black Duck with a peculiarly marked bill; but as we were travelling along quickly, I had only time to stop and shoot a couple for the pot. In the woods were numbers of migratory Thrushes (*Turdus fuscatus*), the Great Black Woodpecker (*Dryocopus martius*), other Black-and-White Woodpeckers, and a small species (*Picus kisuki*) sporting about in company with two or three kinds of Tits, and the Nuthatch named at the head of this paragraph. A Jay (*Garrulus brandtii*) and Cuckoo were also shot during this excursion. Some Geese were on the lake, but they kept themselves so far from shore as to be out of reach of our fowling-pieces. We put up for the night at a Japanese inn, and next morning started through the woods, under the direction of a native guide, to find a new route to the volcano. We had a tremendous day's walk through the thick forests, the only human beings whom we saw being some solitary charcoal-burners at the commencement of our journey; but, after that, all was wild and unbroken forest. We were in constant dread of poisoned arrows; for we had been informed that there had lately been "Inos" (original inhabitants of Yesso) about, setting bows with poisoned arrows for Bears. We saw one Bear; but as I was the only one who carried a gun, and was then in the rear, he escaped. Later in the day we came to where the eruptions of the volcano had devastated the forest, and uprooted trees, logs, and branches were thrown about in such confusion that it was only with the utmost exertion that we made any progress even at the slowest pace. At last, to the great joy of all, we got out on the cinder-slope of the volcano; but it was evening. Notwithstanding, three of the party started for the ascent (I had been up before); but one very soon turned back, and the other two, after making an unsuccessful attempt to reach the summit, were compelled to return, thoroughly knocked up and parched with thirst. We had guided them back by making an immense wood fire, it being quite dark when they arrived. Knowing that it would be impossible to reach the house we had left in the morning, we made our way down the side of the mountain to one end of the lake, crossed a stream which flows out of it towards the sea, and got to a deserted house which we knew of. As luck would have it, we there found a Japanese officer, with two other men, who had come for the purpose of making the ascent of the volcano, and had put up there for the night; so getting a lot of bundles of dry grass for beds, and cooking a mess of rice with four Grouse (*Bonasia sylvestris*) which I had shot during the day, and which I sorely wanted to preserve for specimens, we filled our stomachs and then tried to sleep. But it froze hard in the night, and as most of us had no coats with us, it was impossible to keep warm. We therefore started a joke about Bears being very numerous at this place, and got one of our party so interested in the matter, that I believe, had it not been that we could not all restrain our feelings, he would have marched up and down outside, keeping guard all the night. Next morning we started at an early hour, after finishing the cold rice, walked round the lake through deep swamps, then struck the road, and arrived at the inn before mid-day. In the afternoon some of us rode some miles to the shore of Volcano Bay, returning home by moonlight; and the following day we travelled back to Hakodadi, where an earthquake, which occurred during the night, disturbed very few of us.

PICUS MAJOR, Linn.

A young male specimen of a Woodpecker, as well as can be ascertained, is of this species.

PICUS LEUCONOTUS, Bechst.

A single specimen obtained from a birdcatcher in October, perhaps rather referable to Malherbe's *Picus uralensis,* if this be distinct from the European bird.

PICUS KISUKI, Temm. & Schl. Faun. Jap. p. 74, pl. xxxvii.

A young bird of this species was shot in September. It has the habit of the smaller Woodpeckers of America in keeping company with Tits. (See p. 323.)

GECINUS CANUS (Gm.).

I only shot one of this species of Green Woodpecker, which is the female preserved; but a young male, obtained of a birdcatcher, had the black stripe from the forehead better defined, and a scarlet patch on the forehead.

DRYOCOPUS MARTIUS (Linn.).

My specimen of the Great Black Woodpecker of Europe was obtained from a native birdcatcher; but I several times saw the bird wild in the woods near Hakodadi.

Cuculus canorus, Linn.

This bird was obtained by the United States Expedition at Hakodadi, and I shot one myself in August; but it was a young bird, and therefore not skinned. The name is consequently not in CAPITALS, as are all those of this list of which I actually brought home specimens.

ALCEDO BENGALENSIS.

No distinction can be made out between this specimen and others collected in China; but there seems considerable variation in the colour of the bill of this species. It is the only Kingfisher I observed in Yesso, and appears quite to represent that of England in Northern Japan.

CORVUS JAPONENSIS, Bp. *C. macrorhynchus,* Temm. & Schl. Faun. Jap. p. 79, pl. xxxix. B.

This bird, although from its size it may be classed as a Raven, is the common Crow of Northern Japan. Around Hakodadi it is to be seen everywhere: it frequents the fishing-villages, and attends the drawing of the nets; roosts in company, and is without the solitary habits attributed to the European Raven. Its habits are more allied to those of the American bird when found in large numbers, as in the northern interior of the continent. I presume that it is resident the whole year.

There is a smaller species of *Corvus* in Northern Japan, of which Mr. Maximovitch obtained a specimen, and which, following the 'Fauna Japonica,' he calls *C. corone.* I myself observed some on the rocky shores of Volcano Bay, during a trip which I made to the volcano of Cape Esan, on which excursion two of us returned by a route until then unknown to Europeans. We kept, however, within the ten *ri* (25 miles), the distance to which foreigners are allowed to travel away from the treaty ports. I did not see a single Magpie in Yesso.

Garrulus brandtii, Eversm. Add. ad Pall. Zoogr. R.-A. iii. p. 8; Hartl. Rev. Zool. 1845, p. 52; Bp. Consp. p. 3.

Of this Jay I obtained a young specimen, probably a female, in October. The iris of the eye was composed of two rings, the inner one chocolate, and the outer lilac; bill black; feet dull brown. Length 14 inches; wing 7 inches. Mr. Maximovitch obtained one which he considered identical with that figured in the 'Fauna Japonica' under the name of *G. glandarius japonicus*; but Dr. Sclater says, "The present specimen is certainly distinct, and agrees well with an example of *G. brandtii* of Eversmann (described by Hartlaub, Rev. Zool. 1845, p. 52) in the British Museum."

Nucifraga caryocatactes, Linn.

A female specimen of this Nutcracker, obtained from a bird-catcher near Hakodadi in September, is the first instance of its occurrence being noted in Japan. Dr. Sclater has compared it with specimens from Europe, and cannot detect any material difference. This species was obtained by von Schrenk on the Amoor. Of its breeding I can say nothing.

Mr. Maximovitch collected a specimen of a Waxwing, which he considered identical with *Bombycilla phœnicoptera* of the 'Fauna Japonica.'

PASTOR PYRRHOGENYS (Müll.): Bp. Consp. p. 418. *Lamprotornis pyrrhopogon,* Temm. & Schl. F. J. p. 86, pl. xlvi.

I observed this bird in small flocks (perhaps families) in August, and noticed that it mounts in the air after the manner of a Flycatcher. A young specimen was preserved. Commodore Perry's Expedition collected a number of specimens at Hakodadi in May; but the "light-yellow" eye, mentioned in Mr. Cassin's notice of the bird, evidently from a note of the collector, does not agree with my observations. The bird I shot had the eye brown, as noted at the time I picked it up. This I make a rule to do in all cases, otherwise I should say nothing about it.

Sturnus cineraceus, Temm. & Schl. F. J. p. 85, pl. xlv.; Temm. Pl. Col. 536.

This Starling was not obtained by either Mr. Maximovitch or myself in Japan; but the United States Expedition collected a single specimen at Hakodadi, in May. Mr. Maximovitch notes the Hoopoe (*Upupa epops*) as having been seen.

ALAUDA JAPONICA, Temm. & Schl. F. J. p. 88, pl. xlvii.

I shot a number of Larks, all of this one species, during the summer; but it was not until October that I obtained a good adult specimen, and that was from a native birdcatcher. This Lark is as common in Yesso as our own is in England.

A Snow Bunting (*Plectrophanes nivalis*) from Japan rejoices in a cage at the Zoological Society's Gardens, but I believe that no further particulars are known about it than that it "came in some ship." If this bird inhabits Japan at all, it will certainly be found in the northern island.

LIGURINUS SINICUS (Linn.): Bp. Consp. p. 514. *Fringilla kawarahiba minor,* Temm. & Schl. F. J. p. 89, pl. xlix.

A young male of this species is in my collection.

CHRYSOMITRIS SPINUS (Linn.).

Two specimens of the Siskin were obtained from a birdcatcher in October. It is caught in large numbers by the Japanese for caging.

PASSER MONTANUS (Linn.).

This Sparrow frequents dwelling-houses and other buildings, and is common at Hakodadi. My specimen is an immature male.

Passer russatus, Temm. & Schl. F. J. p. 90, pl. xl.

The specimen was shot from a large flock on the hill-side near the sea, and away from dwellings.

Pyrrhula orientalis, Bp. *Pyrrhula vulgaris orientalis*, Temm. & Schl. p. 91, pl. liii.

This beautiful Bullfinch seems to arrive from the north in October, and is much sought after by the Japanese birdcatchers. The two specimens are male and female.

Mr. Maximovitch obtained the bird figured in the 'Fauna Japonica' as the Hawfinch (*Coccothraustes vulgaris*).

Uragus sanguinolentus, Bp. Consp. 529. *Pyrrhula sanguinolenta,* Temm. & Schl. F. J. p. 92, pl. liv.

A male specimen of this rather rare bird was obtained from a birdcatcher at the end of October.

Emberiza fucata, Temm. & Schl. F. J. p. 96, pl. lvii.

The Buntings are pretty well represented in Japan, and I was fortunate in obtaining several species at Hakodadi. Of this I preserved two specimens, an adult male and a young male, in August. A distinctive character in this bird is the great length of the tertials. Mr. Maximovitch includes *E. sulphurata* in his collection, but as doubtful.

Emberiza ciopsis, Bp. Consp. p. 466. *E. cioides,* Temm. & Schl. F. J. p. 98, pl. lix.

Two specimens of this Bunting were obtained in July and October, the latter from a birdcatcher. It frequented the scrub on the mountain-side of Hakodadi Head, and in my morning rambles in search of novelties I often met with it. It is a common summer resident.

Emberiza rustica, Pallas, F. J. p. 97, pl. lviii.

A male specimen of this was killed in October.

Emberiza ——?

The only time that I noticed this bird, I shot an adult male. It is a well-marked species, but the specimen is a rather worn-looking bird.

TURTUR RUPICOLA (Pallas): Bp. Consp. ii. p. 60.

In the way of Doves, one species, *Turtur rupicola* of Pallas, figured in the 'Fauna Japonica' as *Columba* (*Turtur*) *gelastes,* is common enough during summer and autumn, but I did not skin a single specimen. Commodore Perry's Expedition, however, obtained several at Hakodadi, which, having been carefully examined by Mr. Cassin, were pronouned to be of the Indian species, *T. meena.* Mr. Maximovitch saw a specimen of *Columba sieboldii* of the 'Fauna Japonica'; it was brought him by a Japanese, and may have come from some distance.

BONASIA SYLVESTRIS, Brehm.

I brought home a single young male specimen, which Dr. Sclater considers to be of this species, and which Mr. Maximovitch, who had killed them, pronounced to be identical with those of the Amoor. The length was 16½, and wing 6½ inches. Eye hazel-brown; bill dark horn-colour; feet leaden flesh; over the eye orange-red. This is, I believe, the first instance of this bird being found in Japan; probably it does not inhabit the more southern part of the empire. As far as I saw, it has the same habits as the Ruffed Grouse of North America (*B. umbellus*). Four fine specimens, of which the males had black throats, were shot on another occasion in the thick woods, as mentioned at p. 324.

Respecting other game birds, *Lagopus mutus* is given in the 'Fauna Japonica' on the authority of a native drawing; it will perhaps turn out to be a winter visitant to Yesso. The Quail (*Coturnix japonica*) was collected at Hakodadi by Commodore Perry's Expedition; and plenty are caught and sold in the town; besides, I shot some which I considered identical with the Chinese bird, but, my hands being full with other birds at the time, none were even skinned. I have been informed of Pheasants being seen in the neighbourhood of Hakodadi, and that at a certain season of the year they are brought in for sale; these may, however, be brought across the Strait of Tsugar from the larger island of Nipon; and although I was three months at Hakodadi, I did not see a single Pheasant, nor did I ever hear of one being obtained there in a wild state. Mr. Maximovitch marks both *Phas.*

versicolor and *P. sœmmeringii* as having been seen in the hands of Japanese.

CHARADRIUS MONGOLICUS, Pallas.

A female specimen of the Eastern Golden Plover was shot in September; the bird was in flocks, and not uncommon about Hakodadi in autumn.

ÆGIALITES CANTIANUS (Lath.).

The specimen, obtained in August, does not seem to differ from the Kentish Plover of England. Hakodadi I should consider a very favourable place for the collection of water-birds and waders, and I am only sorry that my time of departure from that place was at a season when a few days' longer stay would have allowed me to do very much more.

TRINGA CRASSIROSTRIS, Temm. & Schl. F. J. p. 107, pl. lxiv.

A specimen agrees well with the figure in the 'Fauna Japonica,' but is certainly very like the Knot of Europe.

TRINGA ALPINA, Linn.

Specimens, in two stages of plumage, seem to mark this Northern Japanese bird as the Dunlin of Europe. It was common in flocks on the sea-beach in October.

TRINGA TEMMINCKII, Leisler.

Two specimens of Temminck's Stint were shot in August: one was preserved; it is a little longer than the measurement given in Yarrell.

TOTANUS OCHROPUS (Linn.): F. J. p. 110.

A female specimen, shot in September, seems identical with the Green Sandpiper of Europe; besides which I observed a *Totanus* very like *T. melanoleucus* of North America; and Mr. Maximovitch includes the common Sandpiper (*T. hypoleucus*) of Europe in his collection; while *T. brevipes* (Vieill.), called *T. pulverulentus* in the 'Fauna Japonica,' was collected at Hakodadi by Commodore Perry's Expedition. The Tahitian Curlew (*Numenius tahitiensis*), coming between *N. major* and *N. minor* of the 'Fauna Japonica,' was obtained by the same expedition, for the first time, in Japan: a figure of this bird is given by Mr. Cassin in the natural-history volume of the voyage. I also shot a Curlew, which I took to be *N. major*; but, being on an excursion of some days' duration, it was not preserved.

GALLINAGO SOLITARIA (Hodgs.): Temm. & Schl. F. J. p. 112, pl. lxviii.

A specimen was shot on the 2nd of August, and skinned. This fine Snipe is common in the market at Hakodadi; besides, *G. stenura* (the *Gallinula gallinago* of the 'Fauna Japonica') was obtained by Commodore Perry's Expedition. Mr. Maximovitch also secured a Woodcock, but the species is doubtful; and I flushed one on two or three occasions: it seems to be a summer resident, or, at any rate, a few breed in Yesso.

Other Waders, of which I did not obtain any specimens, were—a Godwit, preserved by Mr. Maximovitch, probably *Limosa rufa*; an Oyster-catcher, like the European species, observed; and a Heron, in the collection of Mr. Maximovitch, which he considered to be *Ardea goisagi*. I observed a large species of the same genus. A young specimen of *Ibis nippon* was obtained by the same gentleman, and he noticed a Coot, of the species figured in the 'Fauna Japonica' as *F. atra japonica*. I observed Cranes flying over in flocks, on their southward migration, at the commencement of October, at Hakodadi.

PORZANA ERYTHROTHORAX (Temm. & Schl.). *Gallinula erythrothorax*, Temm. & Schl. F. J. p. 121, pl. lxxviii.

Two specimens of this Rail, one in the adult and the other in young plumage, were shot and preserved by myself. It inhabits swampy places, and probably breeds at Hakodadi.

PODICEPS AURITUS (Linn.): F. J. p. 123.

A male specimen, agreeing with the Eared Grebe of Europe, is in my collection; and I had another brought me one day, which proved to be young on dissection; it was too far gone for me to preserve it. The upper parts were black; under parts mixed grey. Length 13 inches, and wing 6·3 inches. Mr. Maximovitch considers he obtained the Black-throated Diver (*Colymbus arcticus*). The Red-necked Phalarope (*Phalaropus hyperboreus*), identical with specimens from the Atlantic coast, was obtained by Commodore Perry's Expedition, as well as the Horn-billed Guillemot (*Uria monocerata*, Pallas).

I preserved no specimens of *Anatidæ* in Japan; but the following may be considered to belong to Northern Japan on good authority, except such as are marked doubtful:—*Cygnus musicus* (?), *Anser* (sp.?), *Anser bernicla* (?), *Anas boschas, Querquedula falcaria, Mareca penelope, Anas fusca* (?), *A. nigra* (?), *Dafila acuta, Nettion crecca, Spatula clypeata, Fuligula clangula* (?), *Mergus serrator, M. merganser* (?).

The Japanese are very expert in netting water-fowl, and they bring in numbers to Hakodadi caught in that way. For Ducks and Teal the usual method is to clear away the grass from a swamp for a space of about 35 by 20 yards, so as to form a clear surface of open water, likely to attract the birds at feeding-time. Across this several nets are stretched, which are fastened to cords attached to stakes on either side, and hang vertically over the water, being about 2 feet above it at the bottom, and about 6 feet high. The net is made of fine twine, and with large meshes, so that it is not easily seen, and, being allowed to bag, easily entangles the birds when they fly against it in skimming over the surface of the pool before alighting. The evening is the principal time for the operation, and men sit watching the nets from small turf huts or screens made of branches. These Duck-catchers mostly occupy themselves in cutting grass during the day. In October I saw a great many of these places, and probably the same plan is adopted in the spring.

One Cormorant at least is very abundant at Hakodadi, and Mr. Maximovitch obtained a specimen which he called *Carbo cormoranus* of the 'Fauna Japonica.'

The only Gull, as I have mentioned before, of which I obtained specimens was Larus melanurus; while, with regard to the *Laridæ* generally, I refer to p. 311, at the commencement of these notes.

In closing this sketch of the birds of Northern Japan, so far as they are at present known, my thanks are due to Dr. P. L. Sclater for having examined my specimens, and, as Editor of 'The Ibis,' for correcting and inserting scientific names of species and references to authorities. I have only to urge as an excuse for a more extended list, that, during the latter part of my three months' residence in the country, I was engaged on some work at that time of more importance, although not so interesting to me as ornithology. As we sailed steadily out of the bay before a light breeze, on the 6th of November, and passed between the mountain-head and the whitened cliffs of the opposite shore, shoals of Bonitos played around our vessel, chasing the smaller inhabitants of the clear sea-water; the peak of the volcano of Comanataki, visible in the distance, grew dimmer and dimmer; the shore-lines became gradually indistinct; the opening to the broad Pacific seemed to our eyes to become narrower and narrower; and we said good-bye to Hakodadi.

XXXV.—*Notes on Birds collected in Angola in* 1861.

By Joachim J. Monteiro*.

(Plate XI.)

1. Ceryle maxima.

This Kingfisher is abundant on the river Quanza, particularly towards the interior; it utters a shrill cry, similar to that of most water-birds; it is said to build its nest in holes in the banks of the river; it feeds on fishes and insects. When sitting on a branch, its attitude is not that generally represented as of the Kingfishers, but it holds its beak and large-crested head at right angles to its body.

2. Colius castanonotus. Native name, "*Sumbo.*"

Feeds on wild fruits, principally on that of a wild fig-tree very abundant all over the country, and called "*Mucuzo*;" flies slowly, generally in threes and fours together, uttering a disagreeable note; found generally distributed; its skin very thick and tough; stomach small and delicate; legs of a beautiful light-red colour.

3. Scopus umbretta.

The example is said to be a young one, but nearly full-grown. This bird occurs near water. The natives affirm that it never

* [These specimens, collected by Mr. Monteiro, have been submitted to Dr. Hartlaub, who has kindly supplied the names and prepared the characters of the new species.—Ed.]

builds its own nest, but that other and different species do so for it; and that a person bathing in a pool of water where these birds are in the habit of washing and pluming themselves is quickly affected with a cutaneous disorder similar to the itch. I mention both these curious reports (which I had not an opportunity of personally investigating) because they are so positively asserted by the natives of Cambambe. This bird is said to be abundant on the river Quanza, towards the interior. Its stomach is long, and full of a muddy pulp, evidently the remains of worms, &c.

4. MOTACILLA CAPENSIS.

Jerks its tail and body exactly in the manner of a Water Wagtail; is common in the river Quanza and in the marshy places of the interior at Cambambe.

5. MEROPS ERYTHROPTERUS. Native name, "*Canguema-a-fele.*"

Seen generally in the high grass and about flowers, which it searches for insects or honey; has a very agreeable chirping song. Stomach contained remains of a small beetle. Locality, Massangano.

6. MEROPS SAVIGNII. Native name, "*Canguema-a-nene.*"

Generally seen on the tops of trees, from which it darts out and sweeps slowly in the air in the manner of a Swallow, returning to rest on the tree, where it utters a very peculiar and mournful cry; stomach contained remains of insects; said to build its nest on trees, lining it with wild cotton or the beautiful silky cotton or fibre enveloping the seeds of the N'borotuto (*Cochlospermum angolense*, Welw.). Locality, Massangano.

7. IRRISOR ERYTHRORHYNCHUS. Native name, "*Quiquengo.*"

Fly generally in threes and fours, and slow, in the thick bush, chattering discordantly. Stomach contained remains of caterpillars and small beetles; legs and whole bill of a splendid light-red colour. Locality, Massangano.

8. MACRONYX CROCEUS. Native name, "*Dibaqueta.*"

Common in Cambambe; stomach contained insects.

9. HYPHANTORNIS XANTHOPS, Hartlaub, sp. nov. Native name, "*Dicole.*"

Weaves nest on tall grass, &c., particularly near and over water. Common everywhere.

10. ORIOLUS LARVATUS, Licht. Native name, "*Muenho.*"

Builds its nest also on grass. Locality, Massangano.

11. CURSORIUS SENEGALENSIS. Native name, "*Cangola.*"

This bird has a rapid, irregular flight high in the air, backwards and forwards, and when alighting on the ground runs along it very fast; stomach full of seeds; legs pure milk-white, with red joints or lines; black spot on the abdomen. Locality, Cambambe.

12. SPERMESTES CUCULLATA. Native name, "*Canguijambala.*"

Builds a large nest on trees; flies about in small flocks in the low grass; under mandible of bill of a very light-blue colour, nearly white at the base. Locality, Cambambe and river Quanza.

13. TOTANUS OCHROPUS.

Rapid flight, uttering at the same time a sharp "tweet;" generally fly in pairs; legs of a very light-grey colour. Found in marshy places. Locality, Cambambe.

14. ORTYGOMETRA ANGOLENSIS, Hartlaub, sp. nov. Native name, "*Munjamba.*"

Never rises on the wing, but runs very fast through the marshy grass, and is consequently very difficult to obtain except by trapping. Several small and beautiful Quail-like birds, with nearly the same habits, are found in Cambambe; but I was unable to capture any in the rainy season during my stay. This bird feeds entirely on worms and water-insects.

15. TINNUNCULUS RUPICOLA. Native name, "*Cahahula.*"

This is the species of Hawk most abundant in Cambambe. Stomach of one contained eight snake's eggs and a small lizard.

16. TELEPHONUS ERYTHROPTERUS. Native name, "*Quioco.*"

Abundant in Cambambe; sings beautifully. The natives believe that when it sings near their huts, it is an omen of good fortune. The stomachs contain beetles and grasshoppers.

17. PLUVIANUS ÆGYPTIUS.

Elegantly beautiful as it runs along the sandy banks of the river Quanza, where alone I have as yet seen it in Angola. Stomach contained gravel and remains of a large beetle.

18. EUPLECTES CAPENSIS. Native name, "*Saca.*"

Male in half moulting, and two females in perfect plumage. Common all over Cambambe.

19. CAPRIMULGUS ——? [*]. Native name, "*Lumbamba,*" Night-jar.

Very common; sings loudly all night long, but its notes are not very varied. Stomach very large, and contained twelve cockroaches and moderately sized beetles, entire, with a mass equalling them in amount of remains of same. Several worms were found in the cavity of the left eye. Locality, Cambambe.

20. HIRUNDO MONTEIRI, Hartlaub, sp. nov. Native name, "*Prapia.*"

Same habits as other Swallows, and uttering, when on the wing, a similar note; builds its nest on rocks and walls, &c. Stomach full of winged ants. Locality, Massangano and Cambambe.

21. STRIX FLAMMEA.

Shot on the river Quanza.

22. PHASMOPTYNX CAPENSIS.

Shot at the river Mucozo (tributary to the Quanza), in Cambambe, where it is very abundant.

23. DICRURUS ——?

Chatters much; is found on the Quanza and near the rivers towards the interior; feeds on insects.

24. DRYMŒCA, sp. Native name, "*Catete.*"

Abundant everywhere in Cambambe; builds a pretty nest, sewn to the leaves of herbaceous plants, through holes which it bores through them.

---

[*] Perhaps *C. rufigena*, Smith.

25. CHALCITES AURATUS.

Cuckoo. Locality, Massangano.

26. PRIONOPS TALACOMA, Smith.

Has a very discordant note, and is exceedingly wary and shy; beautiful yellow eyelids; legs of a light-yellowish red; food, beetles, caterpillars, and other insects.

27. HALCYON STRIOLATA.

All the birds belonging to this family that I have observed in Angola utter a very agreeable loud note or song, which produces a singular effect when, in going down a river in a canoe in the breathless mid-day sun, it is heard cool and clear, whilst all else is hushed and still in the glare and heat.

They are found in the thick woods and bush in the vicinity of the rivers as much or more than on the very banks. Locality, Massangano.

28. UROBRACHYA ALBONOTATA, Cassin.

Not uncommon in the high grass at Cambambe.

29. COLLURIO SMITHII.

Feeds on insects and small lizards, which it secures under its feet, and, allowing the weight of its body to rest on its food, tears it up with its bill in the manner of a Hawk. It has, however, no strength of clutch in its claws, and has a very feeble flight.

30. PHOLIDAUGES LEUCOGASTER.

Was trapped alive, but died after a few days' confinement, during which it fed on several wild berries, said by the natives to constitute its food; it refused to eat insects; its habit of head and neck was very full and flat, like that of a Martin or Swallow. It exhibited a most beautiful appearance when alive, which is wanting in the dead skin.

31. NECTARINIA CHALCEA, Hartlaub, sp. nov.

The only species of Sun-bird that I observed in Cambambe. I noticed several other species on the river Quanza, however.

Is very active and pugnacious; constantly utters a loud chirp for such a small creature, and, whilst flying from bush to bush or flower to flower, now and then flying up to the branch of a tree, it shakes and jerks itself, and breaks out into a song which reminded me strongly of that of the common Robin on a winter evening.

32. Parus leucopterus.

Never observed another specimen of this bird anywhere in Angola. Shot near the river Mucozo, in Cambambe. Stomach contained four caterpillars.

33. Vidua decora, Hartlaub, sp. nov.

Very abundant in Cambambe.

34. Euplectes flammiceps.

Abundant in Cambambe and about the river Quanza.

35. Ixos tricolor, Hartlaub, sp. nov.

Common at Massangano and in Cambambe; seen generally in the negro towns. The stomach of this specimen was found to be full of small grass-seeds.

36. Corythaix paulina.

This species of Plantain-eater is very common towards Pungo Andongo. I also observed it at Massangano, where it is also said to abound. I purchased four, alive, in the short time I was at Cambambe. They are difficult to keep in confinement, as they will not readily become used to any other food but bananas. I had one fine male, however, that would eat anything almost, and which I was bringing down to Loanda; but the black, whose only duty was to take care and carry it in a cage, allowed it to escape.

37. Bucorax abyssinicus. Native name, "*Engungoashito.*"

If not a new species, these birds are certainly the first that have ever been collected in Angola, where great efforts have been made by many persons to induce the natives to capture them, but unsuccessfully, on account of the superstitious dread the natives have of them.

They are found sparingly nearly everywhere in Angola, becoming abundant, however, only towards the interior. In the mountain-range in which Pungo Andongo is situated, and running nearly N. and S., they are common, and it was near the base of these mountains that I shot these two specimens. They are seen in flocks of six or eight (the natives say, always in equal number of males and females). Further in the interior, I was credibly informed that they are found in flocks of from one to two hundred individuals.

The males raise up and open and close their tails exactly in the manner of a Turkey, and filling out their bright cockscomb-red, bladder-like wattle on their necks, and with wings dropping on the ground, make quite a grand appearance.

They do not present a less extraordinary appearance as they walk slowly with an awkward gait, and peer from side to side with their great eyes in quest of food in the short grass, poking their large bills at any frog, snake, &c., that may come in their way.

Their flight is feeble, and not long-sustained. When alarmed, they generally fly up to the nearest large tree, preferring such as have thick branches with but little foliage, as the *Adansonia*, "Mucuzo" (a wild fig). Here they squat close on the branches, and, if further alarmed, raise themselves quite upright on their legs in an attitude of listening, with wide-open bills. The first to notice a person at once utters their customary cry, and all fly off to the next tree.

They are very wary, and, the grass near the mountains being comparatively short, with but little scrub or bush, it is very difficult to approach without being observed by them from the high trees. I followed a flock of six for upwards of two hours, crawling flat on my stomach, negro fashion, before I obtained a chance of a shot, when I was so fortunate as to break the wing of a male without otherwise injuring it. It was quickly captured by the blacks.

They are omnivorous in their food: reptiles, birds, eggs, beetles, and all other insects, mandioca-roots, ginguba or ground-nuts, constitute their food in the wild state. In confinement I have fed this bird upon the same food, also upon fresh fish, which it showed itself very fond of, as well as on entrails of fowls, &c. On letting it loose in Loanda, in a yard where there were several fowls with chickens, it immediately gulped down its throat six of the latter, and finished its breakfast with several eggs!

The note or cry of the male is like the hoarse blast of a horn, repeated short three times, and answered by the female in a lower note. It is very loud, and can be heard at a considerable distance, particularly at night.

They are said to build their nest on the very highest *Adansonias,* in the hollow or cavity formed at the base or junction of the branches with the trunk.

[Dr. Hartlaub describes the new and doubtful species of Mr. Monteiro's interesting collection as follows.—Ed.]

(1.) VIDUA DECORA, sp. nov.

Similis *V. erythrorhynchæ,* sed minor et macula mentali nigra nulla.

The *black chin-spot,* so conspicuous in western and northern specimens of *Vidua erythrorhyncha,* seems to be constantly wanting in the southern race, which for this reason we prefer to separate specifically. Swainson, as also Cabanis, did not overlook this curious difference. The Angolan specimen in Mr. Monteiro's collection is very small, and has the whole under-parts of the body of a pure and uniform white.

(2.) HIRUNDO MONTEIRI, n. sp. (Plate XI.)

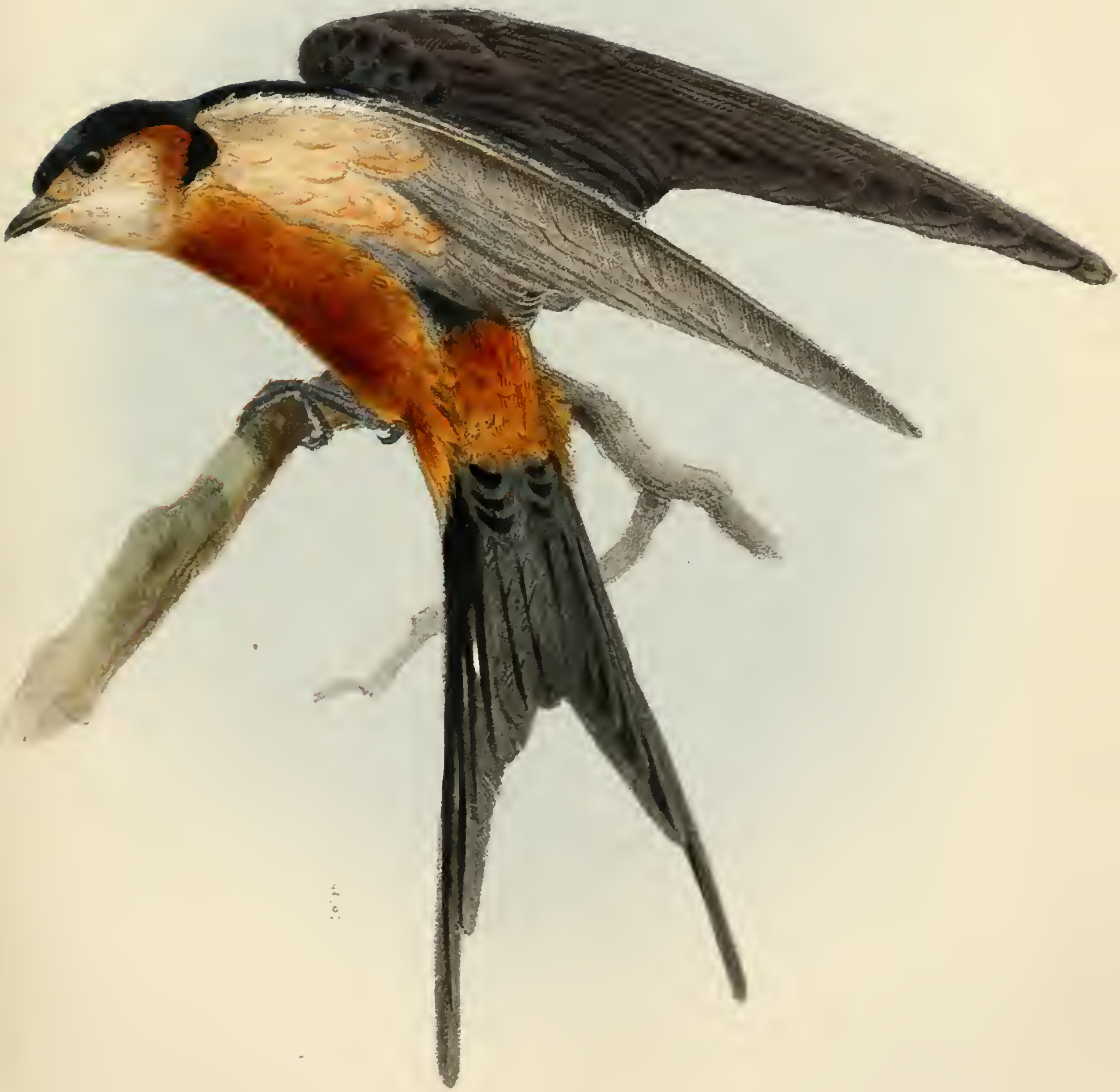
Supra nigro-chalybea, interscapulii et dorsi plumis ad basin niveis; tergo et uropygio late vulpino-rufis; subtus læte et dilute rufa; gula et subalaribus albo-isabellinis; cauda profunde furcata; rectricum 3 utrinque lateralium pogonio interno macula magna oblique alba notato; rostro et pedibus robustis nigris. Long. tot. 8″; rostr. a fr. 5‴; al. 5″ 4‴; caud. a bas. 4″ 4‴.

Of this fine new Swallow there are two specimens in the collection. The other one has the under wing-coverts of a nearly pure white, with only a very faint yellow tinge. Some of the *subcaudales* show a large black ante-apical spot. It comes near to *Hirundo semirufa* of Sundevall, but is much larger and differently coloured. It is fully as large as *H. senegalensis,* from which it may be distinguished at first sight by the want of the red nuchal collar.

We propose to name this interesting bird after its able and zealous discoverer, Mr. J. J. Monteiro.

(3.) ORTYGOMETRA ANGOLENSIS, n. sp.

Corporis superioris plumis medialiter nigris, late olivaceo-mar-



J. Wolf del. et lith.

M & N Hanhart imp.

HIRUNDO MONTEIRI

ginatis; remigibus nigris; subalaribus albo nigroque variis; mento et gula albidis; jugulo pectoreque superiore pure cinereis; gastræo reliquo albo nigroque fasciato, fasciis albis latioribus; capitis lateribus cinereis; lineola superciliari antice alba, postice cinerascente; maxilla plumbeo-nigricante, mandibula ad basin flavo-rubente, tomiis pallidis; pedibus brunneis. Long. 7–8″; rostr. a fr. 11‴; al. 4″ 4‴; tars. 19‴; dig. med. c. ung. 17‴.

This species has a certain well-known aspect, but seems nevertheless to be undescribed.

(4.) NECTARINIA CHALCEA, n. sp.

Valde affinis *N. cupreæ*, sed certe diversa. In fundo aureo-virescente chalceo resplendens, et sub certa luce nonnihil cupreo-rubescens; scapularibus, tergo, uropygio et supracaudalibus magis conspicue cupreo-purpurascentibus; abdomine, alis, subalaribus et cauda, rostro et pedibus nigris. Long. 4½″; rostr. a fr. 9‴; al. 2″ 3‴; caud. 1½″; tars. 7‴.

After comparing this elegant *Nectarinia* with the nearly allied and well-known *N. cuprea* of Senegambia and Upper Guinea, the difference at once becomes striking. The fiery-red and violet tints of the latter are almost entirely wanting in the more southern form, the head and back of which appear, under a certain light, to be green. The beak of *N. chalcea* is longer and stronger.

(5.) IXOS TRICOLOR, n. sp.

Fuscus; capite intensius tincto; abdomine albo; subcaudalibus dilute flavis; subalaribus albis; rostro et pedibus nigris. Long. 7″; rostr. a fr. 7‴; al. 3″ 4‴; caud. 3″ 2‴; tars. 9‴.

In the British Museum there are two specimens of an *Ixos* from Congo, which I have introduced into the additions and corrections to my 'System der Ornithologie Westafrica's,' under the very erroneous name of *Ixos aurigaster*, Vieill. (Lev. Afr. pl. 107. fig. 2). This bird is somewhat larger than Mr. Monteiro's, but resembles it in all other respects. They seem to be probably of one and the same undescribed species, which belongs to the same group as *I. ashanteus, inornatus, arsinoë, xanthopygius*, &c.

(6.) ORIOLUS LARVATUS, Licht.

Considerably smaller than the true South-African *O. larvatus*, and with broad whitish outer margins on four or five of the tertiaries; on those nearest to the back the marginal colour is yellowish. Long. tot. 3″ 3‴; rostr. a fr. 10½‴; al. 4″ 9‴; caud. 3″; tars. 9‴.

From the *O. brachyrhynchus* of Swainson this Angolan bird is easily distinguished by the different colouring of the tail, the two medial rectrices being olive-green with black tips.

(7.) Hyphantornis xanthops, n. sp.

Supra flavescenti-viridis, alarum plumis dorsi colore marginatis; uropygio flavescentiore; cauda viridi; capite corporeque inferiore toto læte vitellinis; gutture rufescente lavato; subalaribus et flexura alæ flavissimis; pedibus carneis; rostro nigerrimo. Long. vix 7″; rostr. a fr. 9‴; al. 3″ 5‴; caud. 2″ 8‴; tars. 11‴.

Allied to *H. aurifrons* and *H. capensis*, but different from both.

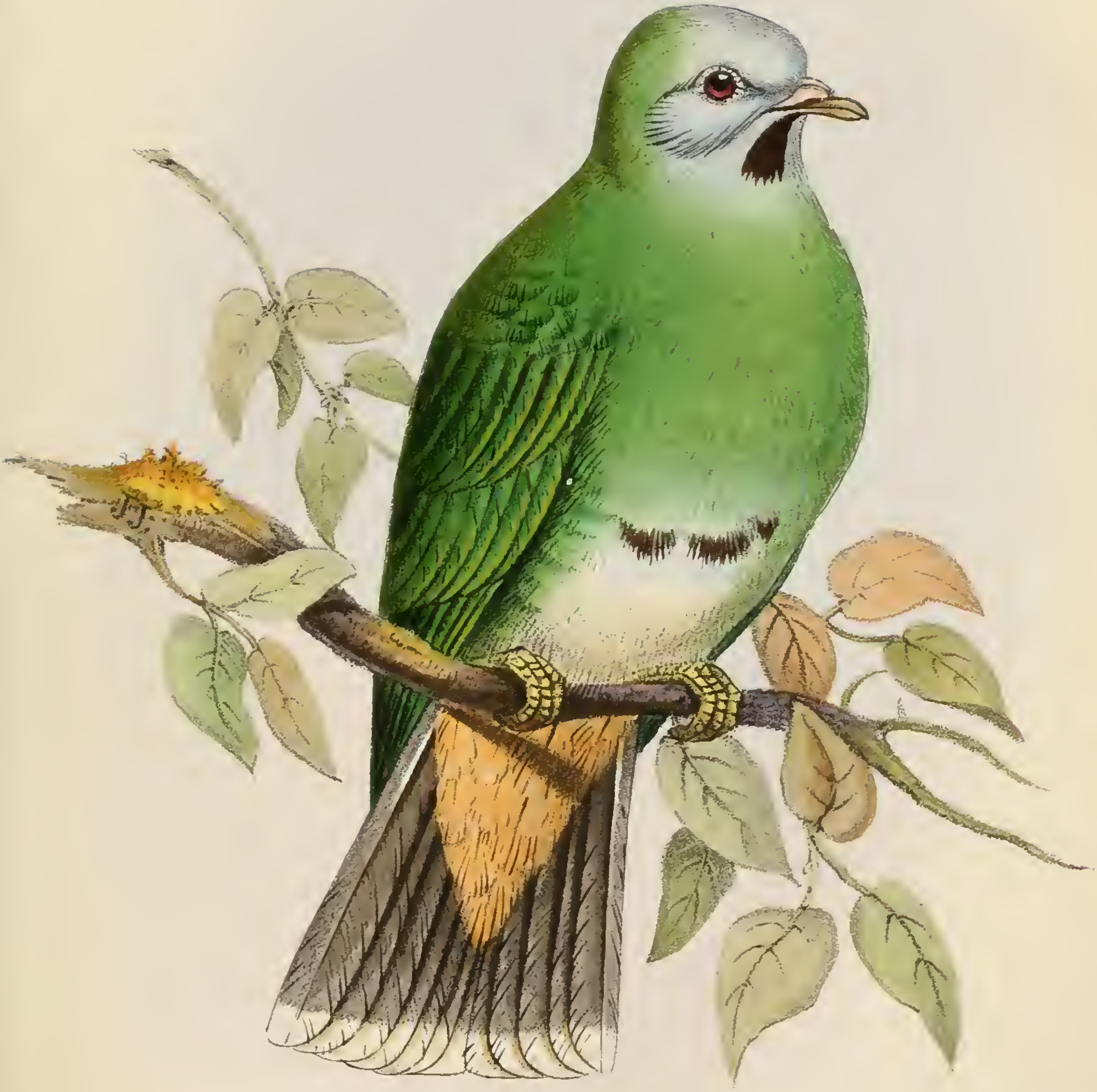
XXXVI.—*Description d'une nouvelle espèce de Pigeon du genre* Leucotreron. Par MM. Jules Verreaux et O. DesMurs.

(Plate XII.)

Leucotreron gironieri, J. Verr. et O. DesMurs.

L. supra læte viridis, subtus viridi-cinereus; macula gulari stricta, pectorali latiore, purpureis; abdomine medio, ventreque infero rufo-albidis; tectricibus subcaudalibus pallide cinnamomeis; pedibus rubris.

Couleur générale d'un vert-clair, tirant au cendré sur les parties inférieures; front et face d'un cendré légèrement teint de vert; une tache longitudinale au menton, une beaucoup plus large et transversale sur le bas de la poitrine, d'un pourpre foncé; milieu du ventre et du bas-ventre d'un blanc-roussâtre; couvertures inférieures de la queue d'un roux-canelle pâle; ailes du même vert que la partie supérieure, à rémiges primaires noires sur leur page interne, et bordées, ainsi que les secondaires, de jaune pâle tirant sur le blanc, dans les premières surtout; couvertures alaires inférieures du même vert que le dessous du corps; queue du même vert-clair que les ailes, terminée, à son extrémité, de vert-olive bordé de blanchâtre. Bec jaune-rougeâtre à la base de la mandibule inférieure; tarses vêtus



Jennens del et lith

M. & N. Hanhart imp

LEUCOTRERON GIRONIERI

jusqu'à moitié de leur longueur, et du même vert-cendré que le reste; la partie nue et les doigts d'un rouge-carmin; ongles bruns.

Longueur totale .... 28 centimètres.
„ de l'aile fermée ... 14 „ 05 mill.
„ de la queue .... 10 „

Cette espèce, qui a été envoyée de Tallawan (Philippines) en 1861, par notre ami De la Gironière, a beaucoup d'analogie avec le *L. gularis*; mais elle s'en distingue facilement, tant par sa taille bien moindre que par la teinte verte des parties inférieures; par la tache pourpre qui se trouve sur la poitrine; par la queue, qui est proportionnellement plus courte et plus arrondie; par le blanc-roussâtre du ventre; et enfin par la couleur canelle pâle qui couvre les couvertures souscaudales. Le dessus de la tête et du cou sont aussi d'un vert qui n'existe pas dans le *L. gularis*. La première rémige est rétrécie de même. Nous la dédions à M. De la Gironière comme un hommage de l'intérêt qu'il porte à la science.

[In reference to this bird, Mr. George Gray, in reply to some inquiries, kindly sends us the following remarks :—"The *Leucotreron gironieri* is closely allied to the *Trerolæma lechlancheri* of New Guinea (Bp. in Compt. Rend. xli. p. 247); but the latter is white on the front, throat, and breast, and the abdomen is green, with a very large patch of obscure purple on the breast below the white." Along with *L. gularis* these two birds form the section *Trerolæma* of the genus *Leucotreron*.—Ed.]

XXXVII.—*Sur l'*Anthus *des Canaries reconnu comme espèce nouvelle et nommé* Anthus berthelotii. Par Charles Bolle (de Berlin).

(Plate XII.)

Synonymie : *Anthus trivialis*, Webb, Berthelot, et Moquin-Tandon, Ornithologie Canarienne; non Linn. (sub *Alauda*); C. Bolle, Bemerkungen über die Vögel der Canarischen Inseln, in Cabanis' Journ. ii. (1854) p. 455.—*A. campestris*, C. Bolle, Zweiter Beitrag zur Vögelkunde der Canarischen Inseln, *l. c.* v. p. 288; non Bechst.—? *A. pratensis*, E. Vernon Harcourt, Birds of Madeira, in Annals and Magazine of Natural History, No. 67, June 1853; non Bechst.

C'est un fait que je crois constater, en signalant à l'attention de mes confrères en ornithologie l'existence d'une nouvelle espèce d'*Anthus* habitant les îles Canaries. Ce Pipi, propre, à ce qu'il paraît, à l'archipel des Fortunées, a eu le sort d'avoir été confondu jusqu'à présent avec plusieurs de ses congénères européens. J'ai moi-même longtemps partagé ces erreurs en ajoutant trop de foi aux déterminations antérieures, et en attribuant une influence trop active aux effets que le climat peut produire sur les teintes du plumage et sur la manière de vivre d'un oiseau. Cependant, il a suffi d'une inspection soigneuse de plusieurs peaux, rapportées par moi des îles, et d'une comparaison (certainement négligée jusqu'à l'heure qu'il est) des ces dernières avec des échantillons des Pipis dont les noms leur avaient été imposés à tort, pour me convaincre que l'oiseau si répandu sur le sol canarien constitue une espèce particulière et bien caractérisée. Je la dédie à mon excellent ami, M. Sabin Berthelot, Consul de France à Sainte Croix de Ténériffe, à la fois naturaliste des plus distingués et écrivain élégant, dont le nom, cher à mon cœur, restera à tout jamais étroitement associé à celui du beau groupe d'îles qui ont été l'objet principal de ses études et de ses investigations.

Diagnose.—Ongle postérieur un peu plus long que le pouce, robuste, légèrement courbé. Bec allongé. Teinte générale du plumage d'un brun roussâtre, plus ou moins moucheté, le plus fortement sur la tête; poitrine tachetée de noirâtre sur un fond blanc. Penne extérieure de la queue blanche avec une bande longitudinale brune sur les barbes internes, pénultième blanche ayant les barbes externes brunes, liserées de blanc jaunâtre, la couleur blanche passant, dans la plupart des cas, sur la pointe de la troisième penne.

Description.—Brun un peu, roussâtre en dessus, moucheté d'une teinte plus foncée, quelquefois noirâtre, surtout sur le dessus de la tête. Strie blanche au dessus de l'œil, partant de la base de la mandibule supérieure. Croupion d'un roux fauve plus ou moins clair, toujours sans taches, se confondant insensiblement avec la couleur du dos. Rémiges primaires brunes, les postérieures largement bordées de roux mat; second rang des couvertures des ailes bordé de blanc, formant ainsi sur l'aile une strie blanchâtre peu marquée. Dessous du corps blanc, portant sur la poitrine des mouchetures noirâtres assez clairsemées qui, en montant vers le haut, laissent la gorge blanche entre deux stries de petites taches foncées. Rectrices brunes, à l'exception du blanc mentionné dans la diagnose. Tige de la penne extérieure moitié blanche (en bas), moitié brune-foncée; tige de la pénultième entièrement brune.

Pieds d'une couleur claire. Dessus du bec couleur de corne. Tel est le plumage de l'*Anthus berthelotii* au printemps. Il reste à remarquer qu'autant que je me rappelle il n'offre point de grandes variations suivant la saison ou suivant le sexe, et qu'en aucun temps il ne présente la plus légère trace de vert.

Longueur de l'oiseau (mesuré d'après la peau), 5½''.
„ du tarse, 9'''.
„ de l'ongle postérieur, 4'''.
„ du bec, à partir du front, 4'''.

Les ailes, comme on peut s'y attendre chez un oiseau qui n'émigre point et qui court plus qu'il ne vole, sont assez courtes, leur pointe n'atteignant pas la moitié de la longueur de la queue. Les rémiges postérieures sont très-fortement développées et égalent à peu près en longueur les extérieures. Ce sont leurs bordures fauves, ainsi que la couleur uniforme du croupion et du bas du dos qui prêtent à notre espèce une certaine ressemblance de coloris avec le Pipi Rousseline (*A. campestris*, Bechst.), chez lequel elles sont exactement de la même nuance. Ce dernier cependant l'emporte de beaucoup par la taille sur le Pipi Berthelot, plus petit et plus svelte. En outre, abstraction faite de plusieurs autres différences, la strie alaire est toujours blanche chez l'*Anthus berthelotii*, jaunâtre chez l'*A. campestris*, et jamais, chez ce dernier, la couleur blanche n'empiète sur la troisième des rectrices extérieures. L'ongle du pouce est de la même longueur absolue chez l'un et l'autre, par conséquent, il est relativement plus long chez l'oiseau des Canaries.

Le Pipi Berthelot habite toute l'étendue de l'archipel canarien, où il est très-répandu et où je l'ai trouvé de Fortaventure à l'île de Fer. On est sûr de l'y rencontrer partout où l'aridité du sol volcanique rend la végétation moins luxuriante en laissant une grande partie du terrain à nu. Plus la roche et les amas de pierres calcinées, livrées à une lente décomposition, dominent dans le paysage, au milieu de la verdure glauque des Euphorbes arborescentes, des Balos et des Agulayas, plus il se montre avec fréquence. Une de ses localités de prédilection sont les grandes nappes de tuffs blanchâtres, restes d'anciennes éruptions boueuses, connues dans le pays sous le nom de Toscales. Le choix, en outre, qu'il aime à faire des endroits dénués d'herbe, lui fait préférer, à la manière de l'Alouette Cochevis, les grandes routes et les chemins battus, lieux qui, en le familiarisant avec la vue de l'homme, paraissent l'en avoir rendu l'ami. C'est par cette raison qu'il a reçu, aux îles, les noms vulgaires de Correcamino ou de Caminero. Un troisième nom qu'il y porte est, suivant Berthelot, celui de Pajaró cajon.

Cet oiseau se montre surtout nombreux dans la région basse et chaude du littoral canarien, parceque les terrains qui lui conviennent y abondent le plus. Nulle part je ne l'ai trouvé plus commun que sur les pentes douces des collines désertes et pierreuses de la Grande-Canarie et de Fortaventure, dont il partage le séjour avec le Pajaró-moro (*Pyrrhula githaginea*, Temm.). Cependant il est loin de fuir la montagne ou de s'effaroucher d'une température plus fraîche. Dans la Grande-Canarie, je l'ai observé à de grandes hauteurs au dessus de Aguimes et de Tenteniguada. Dans ces régions il monte même jusqu'aux hauts-plateaux de la Cumbre qui constituent la crête dominante de l'île.

La propagation du Pipi Berthelot n'a pas encore été suffisamment observée. Je n'en saurais dire autre chose, sinon que c'est le seul oiseau qui niche à terre dans les champs de nopal, servant à la production de la cochenille. Cet *Anthus* ne s'expatrie jamais; pendant l'hiver, ceux de ses individus qui peuplent les hauteurs ne font que descendre vers le littoral. Il vit en paires et, l'époque des amours passée, il se réunit en petites bandes qui ne semblent composées que des membres d'une seule et même famille. Sur le sol poudreux et sur la pierre, on le voit courir lentement mais gracieusement. Quand il est las de piétonner à petits pas, il se repose, perché sur le sommet des grosses branches des Tabaybas, sur les Cactus ou sur les Agaves. Dans cette attitude, il aime à se tenir immobile pendant quelque temps, sans changer de place en sautillant de branche à branche. A l'approche de l'homme, il s'envole rarement; au lieu de cela, il ne fait que s'accroupir à l'instar du Cul-blanc (*Saxicola œnanthe*). Il manifeste encore moins de timidité en présence d'hommes montés à cheval.

Cet oiseau n'a point de chant proprement dit. Ce qu'on entend le plus souvent de lui, c'est un petit cri doux et plaintif qui, à côté du chant monotone du Pouillot véloce (*Phyllopneuste rufa*, Bonap.) et de la voix grêle de la Cresserelle, est un des accens les plus familiers de la campagne canarienne.

La nourriture du Pipi Berthelot est à peu près celle de ses congénères d'Europe. Cependant, il semble être moins exclusivement insectivore que la plupart de ces derniers ne l'est réputée. A en juger par ce que j'ai trouvé dans l'estomac de plusieurs individus tués par moi, des graines, même assez grosses, font aussi partie de son régime. Il paraît particulièrement exposé à une maladie qui fait dégénérer la peau, surtout aux pieds et aux doigts, en tubercules, et qui attaque quelquefois même la substance cornée du bec. J'ai vérifié ce fait sur un assez grand nombre d'oiseaux libres de cette espèce, qu'en même temps j'ai constamment trouvés amaigris et leur plumage fortement usé.

L'honneur d'avoir le premier remarqué comme une lueur de différence chez cet oiseau, revient à M. de Kittlitz, qui visita Ténériffe en 1826. Il s'exprime en ces termes: "Les premiers oiseaux que nous rencontrâmes, couraient le long de la route. J'en tuai un de cette société et je le trouvai peu différent du Pipi Spioncelle (Wasserpieper, *Anthus aquaticus*, Bechst.), si fréquent sur le Riesengebirge, si ce n'est que les pieds en étaient d'une couleur plus claire et que l'ongle postérieur était moins long, de sorte qu'il semblât tenir le milieu entre l'espèce citée et l'*Anthus campestris*." Cette courte indication est, par rapport au coloris, frappante de vérité. En effet, qui est-ce qui soutiendrait qu'un oiseau "tenant le milieu entre les *Anthus aquaticus* et *campestris*," et au dessus de tout soupçon de bâtardise, puisse être autre chose qu'une belle et bonne espèce.

Pour moi, c'est plus qu'une probabilité, c'est presqu'une certitude que le Pipi de Madère, figurant dans le catalogue des oiseaux de cette île sous le nom d'*Anthus pratensis*, soit encore notre *Anthus berthelotii*. Mes souvenirs, quelques éphémères qu'ils soient quant à Madère, me le rappellent comme y habitant les mêmes lieux et y montrant la même familiarité comme aux Canaries. De plus, Vernon Harcourt lui y attribue le nom identique de Corre de caminho. Il est évident qu'on ne saurait concilier les traits que je viens de signaler avec les mœurs bien connues de la Farlouse. Mr. J. Yate Johnson vient encore corroborer mon opinion en s'énonçant sur l'oiseau en question de la manière suivante :—

"*Anthus pratensis* is plentifully found in the fields near the sea and in the serras. It utters a low note, running along the ground, and never takes a long flight. The natives consider the bird sacred, and have some legend about its having attended the Virgin at the time of the nativity."

Berlin, le 1er juillet 1862.

XXXVIII.—*On some new Birds from the Northern Moluccas.*

By Alfred Russel Wallace.

In a collection just received from Mr. Allen, made during a visit to the north of Gilolo and the adjacent island of Morty, a few species occur not included in the list published by Mr. G. R. Gray. Two of these, a *Tanysiptera* and a *Tropidorhynchus*, are from Morty (a small island to the north of Gilolo), to which they are no doubt strictly confined, other and very distinct species of the same genera taking their place in Gilolo itself; and they are further interesting as marking the northern limit to which these two genera are yet known to extend. The other birds found at Morty are Gilolo species, with the exception of a Crow, which appears to agree best with the *Corvus orru* of New Guinea, and *Butalis hypogrammica*, n. s., which agrees with specimens from Ceram, but has not yet been found in Gilolo.

The island possesses an active volcano, but otherwise consists only of raised coral-rock and sand. It has therefore, probably, never been connected with any other land, but has been gradually raised in the ocean by volcanic agency. While this was going on, it would be peopled by stragglers from the surrounding countries, and an overwhelming proportion of Gilolo species would naturally result from the proximity of that island. The species of *Tanysiptera* and *Tropidorhynchus*, which, from being generally very local, we may conclude to be peculiarly subject to modification, are those which have undergone the greatest amount of change, and already present us with well-marked specific characters.

LORICULUS AMABILIS.

Dark green above, lighter green beneath, middle of the back and under tail-coverts yellowish green ; crown of the head, rump, and upper tail-coverts, a spot on the throat, and the outer bend of the wings bright red ; quills black, on the upper side with the outer web green, beneath with the inner web blue ; tail green above, blue beneath, with a minute yellowish spot at the apex of each feather. The female wants the red on the crown, and has a more brownish tinge between the shoulders.

Bill black ; feet light red.

Total length ♂ 4¼ in., ♀ 4¾ in., wing 2¾ in.

Hab. Gilolo.

Remark.—This beautiful bird is a minute copy of the *L. stigmatus* of Celebes, from which it differs a little in colour and in the greatly developed upper tail-coverts, which completely hide the tail, and sometimes extend beyond it.

TANYSIPTERA DORIS.

Black, slightly tinged with deep blue, which is more distinct on the ear-coverts, nape, and shoulders ; crown and lesser wing-coverts verditer blue ; a large spot in the middle of the back, rump, throat, breast, and belly, white, slightly rufous-tinged ; tail white, with the outer web of all the feathers blue above and dusky beneath ; two middle feathers entirely blue above, except the spatula-tips and a portion of inner web at the base, which are white ; under wing-coverts white, mixed with black at the base and on the shoulder-margins ; sides of breast and belly blackish.

Bill deep orange-red ; feet dark olive.

Total length about 14 inches; wing 4 inches.

Hab. Morty Island.

In the young bird there are numerous oval buff spots on the middle of the back, which do not occur in the young of any of the other species.

Remark.—This species differs from its allies in the large white dorsal spot; from *T. sabrina,* G. R. G., which has a small dorsal spot, it differs in the much lighter blue of the crown, which is sharply defined behind: in general coloration it more nearly resembles *T. isis,* G. R. G., but is rather larger, and has the tail-spatulæ more like *T. galatea,* G. R. G. It seems to be confined to the small island of Morty, only separated by a strait 30 miles wide from Gilolo, the habitat of *T. isis.*

ACROCEPHALUS INSULARIS.

Above olive-brown, more rufous on the rump and tail; beneath white, tinged with ash on the neck and breast, and with rufous on the flanks and under tail-coverts; an obscure pale stripe from the nostrils over the eyes and ear-coverts.

Bill dusky; lower mandible and feet pale.

Total length 6¾ inches; wing 3¼ inches; bill from gape ⅘ inch.

Hab. Gilolo and Morty Island.

BUTALIS HYPOGRAMMICA.

Ashy brown, wings and tail blackish; beneath white, with dusky stripes on the sides of the throat, breast, and flanks; lores white; bill and feet black; base of lower mandible pale yellow; iris black.

Total length 5¼ inches; wing 3¼ inches.

Hab. Ceram and Morty Island.

Remark.—The above is the manuscript name attached to my specimen from Ceram by Mr. George Robert Gray.

CRINIGER SIMPLEX.

Above olive-yellow; beneath dusky yellow, rather paler on the throat; quills with the inner margins dusky brown; tail-feathers dull olive beneath and on the inner webs. Bill dusky lead-colour, margins pale; feet lead-colour; iris dark.

Total length $8\frac{1}{2}$ inches; wing 4 inches; bill from gape $\frac{7}{8}$ inch.

Hab. Batchian, Gilolo, and Morty.

Remark.—This species is smaller than *C. flavicaudus*, Bp., from which it differs in the uniform dusky tail. My specimens from Gilolo differ among themselves in the size of the bill, showing that this important organ is, like every other part, liable to variation. This species was included in Mr. G. R. Gray's list of Moluccan birds as *C. flavicaudus*.

TROPIDORHYNCHUS FUSCICAPILLUS.

Above dark glossy olive-brown, deepening to blackish olive on the head; beneath earthy brown; under tail-coverts lighter; throat light ash, whitest near the ears, where it has almost a silvery gloss; outer edges of the quills, lower part of the throat, and the breast tinged with olive-yellow, which seems more distinct in the male than the female; orbits and bare part of face flesh-colour; bill, simply keeled at the base, black; feet lead-colour.

Total length 14 inches; wing 6 inches; bill from gape 1·7 inch.

The young birds have the quills and feathers of the middle of the back and breast broadly margined with olive-yellow.

Hab. Morty Island, near Gilolo.

This species is very distinct by its dark head, simple beak, and bare flesh-coloured orbits, and by wanting the characteristic recurved feathers on the nape.

ERYTHRURA MODESTA.

Green; forehead and cheeks blue; sides of neck yellow-tinged; upper tail-coverts, two middle tail-feathers, and margins of the outer ones red; tips of wings dusky; under wing-coverts yellowish buff.

In the female the blue and red colours are duller, and do not extend quite so far.

Bill black; feet pale dusky red; iris dark.

Total length 5 inches; wing 2·4 inches.

Hab. Ternate, at an elevation of about 2000 feet.

XXXIX.—*On the Extinction in Europe of the Common Francolin* (Francolinus vulgaris, *Steph.*). By LORD LILFORD, F.L.S., F.Z.S.

THE game birds of Europe having always been objects of special interest to me as a sportsman, I have devoted a good deal of time and attention to the habits and history of the rarer species of that class; and my object in this paper is to throw together all the information that I have been able to collect about that most beautiful species the Common Francolin, which I have every reason to believe is now totally extinct in Europe. I notice that Dr. Bree, in his 'Birds of Europe not observed in the British Isles'*, states that the Francolin *inhabits* the South of Europe, especially Sicily, Malta, Cyprus, Sardinia, Naples, the Grecian Archipelago, and Turkey. I propose to show that, with the exceptions of Cyprus (which can surely hardly be considered as part of Europe) and Turkey, which I take to include Asia Minor, the Francolin is no longer to be met with in any of the above localities. Let us begin with the first-named, Sicily. M. Malherbe's account, quoted by Dr. Bree from the 'Faune Ornithologique de la Sicile,' is probably well known to most of the readers of 'The Ibis'; but it is perhaps less generally known that this account is translated *verbatim* from the 'Ornitologia Siciliana'† di Luigi Benoit, published at Messina, 1840. I have not visited the particular localities mentioned in that work as being at that time the head-quarters of the Francolin in Sicily; but after diligent inquiries in the island in 1856, amongst sportsmen, cacciatori, game-dealers, and others well acquainted with the bird, I could only arrive at the fact that not one had been seen alive, or freshly killed, during the ten previous years. A friend of mine who made a shooting expedition in 1858, in what were formerly the head-quarters of the Francolin, and who is well acquainted with the Black Partridge, as the Common Francolin is termed in India, told me that he saw several stuffed specimens in different places, but never saw one alive in Sicily, and that all the cacciatori agreed that the bird no longer existed in their shooting-grounds; although some of the veterans remembered it as formerly tolerably common, and gave a description of its habits, which exactly coincided with those of the Indian bird. The only Englishman, that I know, who has shot the Francolin in Sicily is W. S. Craig, Esq., now British Consul at Cagliari, who formerly passed several years in Sicily, but he only once met with the bird in a wild state there. That it was once common in the island there is no doubt. Olina, writing in 1622*, says, "In Sicilia vene son molti;" and gives a good figure of the female bird. Savi, who tells us that the Francolin was formerly very common in the preserves of the Tuscan princes, but is now quite extinct there, says,—"Adesso vivono ed anche trovansi assai comunemente in Sicilia"†: this was published in 1829. Temminck and Degland both give Sicily as a locality for the Francolin, the latter author writing in 1849. The above is all that I have been able to learn concerning the Francolin in Sicily, and I consider the fact of its extinction in that island to be well established. The only authorities I can find for the existence of this species in Malta (a most improbable locality) are Temminck and Schlegel, and I have no hesitation in stating that it does not exist there at the present moment. In Cyprus it is still tolerably common, and on careful comparison of specimens procured by Mr. Tristram, in the market at Larnaca, with some in my own possession from the Punjâb, I can discover no important difference. Temminck is the only authority for the existence of this species in Sardinia; and I can only say, after three visits to that island for the purpose of shooting, that not only have I never met with the bird alive or dead, but I have never been able to hear of its actual or former existence there. In support of this, I may state that Signor G. Cara says, in his useful little work on Sardinian Ornithology, under the head of "Genus Perdix," "La prima sezione 'Francolino' manca fra noi."‡ This gentleman has often assured me that the Francolin had never, as far as he knew, been found in the island of Sardinia. There are several authorities for the former existence of the bird in the Neapolitan provinces; but I am assured that it was imported from Sicily, and strictly preserved in the royal domains, and that it is now quite extinct there. My brother, who has just returned from Italy, tells me that very few persons of whom he made inquiries had ever heard of a "Francolino;" and on one occasion a Goldfinch was brought to him, its possessor insisting that it was the only real, genuine, and indivisible Francolin. In the Grecian Archipelago I cannot discover that the species now exists, though it appears to have been common formerly in Mitylene, Samos, and Rhodes; but, again, are we to consider these islands as belonging to Europe? Turkey is so very wide a term that, till I know to what portion of that empire Dr. Bree refers, I will content myself with saying that the only part of European Turkey in which I can hear of Francolins within the memory of man is the shores of the Gulf of Salonica, and none are to be found there at present. I hope that Dr. Bree, if he does me the honour to read this paper, will perceive that the real question at issue between us is his authority for the use of the present tense of the verb "inhabit" as applied to the Francolin in Europe, and I shall be most happy if he, "or any other man," can prove that it still exists on our continent or its islands.

---

* Vol. iii. p. 237.

† Ibid. p. 118.

---

* Uccelliaria Romana, p. 33.

† Ornitologia Toscana, vol. ii. p. 189.

‡ Ornit. Sard. p. 106. Torino, 1842.

It is remarkable that neither Temminck, Degland, nor Schlegel should cite Spain as a locality for our bird, as, though now extinct in that country, it was formerly common in certain favourable localities, especially the neighbourhood of the Lake of Albufera, near Valencia: *vide* 'Catalogo de las Aves de la Albufera,' by Vidal, who, referring to the work published by Escolano, on the fauna of the province of Valencia, in 1722, says of the Francolin,—"Muy abundante en la Dehesa en tiempo de aquel escritor, no se encuentra ya en semejante localidad." I saw specimens from the above-mentioned "Dehesa" (a sandy strip of land between the Lake of Albufera and the sea) in the Museum at Valencia in 1856, which had been killed many years previously; but during a long day spent in wandering about the shores of the Albufera, gun in hand, and after inquiries amongst the fishermen and cazadores of the place, I could only discover that, to use a Spanish proverb, the Francolins were "idos y muertos y no tienen amigos." Olina, to whom I have before referred, mentions the abundance of Francolins in Spain in his time, and tells us that they particularly affected plains overgrown with "ramerino e spigo." I have been assured that Francolins were common many years ago near Tangiers; but I may as well mention that I have heard the name of "Francolino" applied in different parts of Europe to the following birds—*Otis tetrax*, *Pterocles arenarius*, *Pterocles setarius*, *Perdix gambra*, *Lagopus alpinus*, and *Œdicnemus crepitans*; and I am by no means certain that the name is not occasionally applied to *Tetrao bonasia*. To revert to Barbary: I observe that a writer in 'The Field,' of May 3rd, 1862, includes " the Francolin, *Arabicè* Boozerat," in a list of the game of the district of Mogador and Saffi. Qu., is this our species? It is not included by Captain Loche in his catalogue of the birds of Algeria; and though it is mentioned by our old friend Olina as especially abundant in the neighbourhood of Tunis, I have every reason to believe it to be quite extinct in that regency. I may here mention that I met a gentleman in the Zoological Gardens at Marseilles (where there were several living Francolins from Syria), who assured me that he had once, and only once, met with and shot a pair of Francolins near Philippeville in Algeria. My own belief is, that the 'Αττάγας of Aristotle, Pliny, Celian, Varno, Aristophanes, and others, as quoted by Buffon*, was the Francolin, though the latter author is quite confused between his Attagas, or Attagen, and our *Tetrao scoticus*, which surely never existed in Egypt, Samos, Cyprus, and Barbary.

Having done my best to show where the Francolin is not to be met with, I may now state the very little I know as to where it is found. A friend, who killed many Francolins in the south of the island of Cyprus, told me that they were very abundant in the Vale of Maratassa, near Baffa (the ancient Paphos); that they are found in sandy spots with good cover, near streams and ponds; that they lie pretty close, and will keep running before a dog, at last springing perpendicularly into the air, with a great outcry, and darting off with a flight much like that of our common Partridge: he considers them easy to shoot, and most delicious food. The discrepancy between this latter statement and that of Captain Irby may, I think, be reconciled by bearing in mind that, as a rule, the hotter the climate the worse the flesh, fish, and fowl. May not, therefore, the cook have had something to do with it? That the fathers did not agree with Captain Irby is abundantly proved. Olina quotes St. Jerome, who, rebuking some hypocrite's pretence of abstemious living, says, "Tu Attagenem eructas, et de comesto ansere gloriaris." Whilst I write, I receive a letter from a friend formerly resident at Naples, who tells me that, during six and a half years' constant shooting over the Terra di Lavoro, he never even heard the name of Francolino: he also says,—"Prince Piguatelli informed me that he once killed a Francolin near Palermo, about the beginning of this century; and such was even then the rarity of the bird, that his having done so was considered an extraordinary exploit by all the cacciatori."

---

* Oiseaux, vol. iii. p. 264.

Sicily has now fallen into the hands of Victor Emmanuel, who adds to his many other merits that of being a first-rate sportsman; and as His Majesty is titular King of Cyprus, and, no doubt, possesses his proper influence with his brother of Turkey, let us hope that the Francolins may again be established in their former haunts in "*Trinacria*," and thence, by degrees, find their way into the preserves of Italy's best foreign friends, the gentlemen of England. I have no doubt whatever that they would thrive in many parts of Great Britain. There could be no great difficulty in importing them from Beyrout, in the neighbourhood of which town they are not uncommon (the Arabs take them with trained Goshawks); and I think I may venture to say that our Editor would give them a reception as warm as necessary in the Regent's Park. The Francolin is a bird in every way worthy of the attention of the Acclimatization Society; and should they ever import any, and be at a loss for a home for them, I can only say that I should, at any time, be most happy to receive and give them every necessary attention. But I discover that I am advertising; so I will merely add, that I shall feel much honoured if Dr. Bree will take up the amicable glove I have thrown down, and if he can prove the present existence of a Francolin in a wild state in any part of Europe (properly speaking), I shall retire from the field vanquished, but delighted. I am of a hopeful temperament, and I do not despair of seeing the day when Francolins shall be as common in England as Red-legged Partridges or Chinese Ring-necked Pheasants.

XL.—*Notes on the Birds of Egypt.* By S. Stafford Allen.

1. The Spotted Cuckoo (*Cuculus glandarius*).

During a recent visit to Egypt, extending from the middle of December 1861 to the end of May 1862, I had frequent opportunities of observing this bird, the "*Cuculus glandarius*" of Latham, Yarrell, and Gould; and having seen in 'The Ibis' that a difference of opinion exists amongst ornithologists as to its nidification, I think a few facts which have come under my notice may be interesting.

The first specimen met with was shot near Ghizeh, January 1st, 1862, and proved to be an adult female which had just finished moulting. After this they were seen at intervals all the way up the Nile (to Assouan), and subsequently in the Delta, about twelve specimens in all being obtained, five of which were shot by myself.

These birds generally occurred in pairs, frequenting the groves of Gum Acacia trees (*Acacia nilotica*), the "Sout" of the Arabs, which line the banks of the Nile, both in Upper and Lower Egypt, where their presence was usually made apparent by the chattering, which I believe proceeds from the female. I was informed that the male has a note similar to that of the male of *C. canorus*; but this I never heard. When disturbed, they flew with a steady, dipping flight, the long tail being very conspicuous, alighting a little further on; and if pursued, would slip quietly out of the opposite side of the tree to a fresh shelter. There is no perceptible difference between the sexes, either in plumage or in size; but the young bird just fledged is much darker in colour than the adult, becoming lighter with age.

One specimen only, amongst those we shot, had the plumage (which in other respects appeared fully developed) of the same colour as the young bird. This was killed about the middle of March, and could therefore hardly have been a bird of the year.

The irides of the Spotted Cuckoo are dark brown; the beak purplish horn-colour, lighter underneath; the legs and feet horny, with a bluish tinge. The toes are placed as in the Woodpeckers, two forwards and two backwards, and the claws are considerably curved.

The food of this bird consists chiefly of caterpillars and different kinds of insects, as many as twenty-four of the former having been found in one bird. It seems, however, occasionally to indulge in eggs (another habit of its English congener), as an egg-shell, apparently that of the common Fowl, was found in the stomach of one on dissection.

On the 12th of March, a pair of Cuckoos, male and female, were shot at Colóssane, about 140 miles above Cairo. Whilst being killed, the latter deposited an egg, which is now in the possession of my friend James H. Cochrane, Esq., of Lochire, near Cork, together with both the parent birds.

This specimen does not correspond with the figure of Mr. Hewitson, nor with the description given by the Rev. H. B. Tristram, at page 77, vol. i. of 'The Ibis.'

The following particulars were sent by my friend above named, at my request, as I omitted to take down an exact description at the time:—"Length 1 inch 5 lines, breadth 11 lines; nearly alike at both ends; colour bluish white, slightly dirty, without any spots. Texture chalky, without polish; before being blown slightly translucent."

On a subsequent occasion, a hen Spotted Cuckoo, which I shot, contained an egg nearly ready for exclusion, but it was unfortunately broken when killing the bird.

On the 22nd of April, whilst searching for nests in the neighbourhood of Tifte, in the Delta, we found one of the Hooded Crow (*Corvus cornix*) in a sycamore or wild-fig tree, which contained two young Crows, and a young *Cuculus glandarius*, just fledged and able to fly a little. He was taken to the Nile boat, where he soon became quite contented, eating greedily all the scraps of meat, &c., offered to him, and, like Oliver, "asking for more." This bird arrived safely in England, and was alive and well when I last heard from his owner, who added that his plumage, which was very dark when taken, had become much lighter.

The Spotted Cuckoo has occurred in Malta, but I believe only accidentally; for it does not appear to be migratory, as a general rule.

2. Egyptian Bee-eater (*Merops persicus*).

Three of the *Meropidæ* are found in Egypt, namely, *M. apiaster*, *M. persicus*, and *M. viridis*, of which the last only is a resident throughout the year.

The two former species arrive in Lower Egypt together, early in April, on their way from their winter-quarters in the equatorial regions of Africa to their respective breeding-places; but whilst *M. apiaster* continues its journey across the Mediterranean and Asia Minor to Eastern Europe and the shores of the Black Sea for that purpose, *M. persicus* remains in the Delta, and breeds on the banks of the Nile.

In note, flight, food, and habits generally, *M. persicus* very closely resembles the commoner species, as also in its size and shape, except that the bill is longer and more tapering, and the two middle feathers of the tail are considerably longer in the former.

These birds mostly fly in flocks of twenty or thirty, though sometimes in much greater numbers. Whilst on their way in the day-time they keep at a considerable height, and sail about like Swallows, though not so rapidly, descending at night to roost in trees. They have a sharp twittering cry, which is often distinctly audible when the birds are almost out of sight. The Arab name of "Dar-doon" is applied to both species. The plumage of the male bird is rather brighter than that of the female. The irides are red; the beak black; the legs and feet purplish, the two outer toes being united for half their length, as in the Kingfishers.

Whilst returning from an ornithological excursion down the Nile to Damietta on the 21st of April (1862), our attention was attracted by a large flock of *M. persicus* hovering over one particular spot, where others of their number were settled on the ground. On a closer examination, a large number of holes were seen in a piece of ground between the river and a field of young wheat, which very slightly shelved down towards the water, in and out of which holes Bee-eaters were constantly passing. After digging out a passage of nearly 4 feet in length, which went in at an angle of 10° or 15°, we found a slightly enlarged chamber, which formed the nest. The bottom of this chamber was covered with the remains of dragon-flies, &c. (mostly wings), upon which the eggs were deposited. These were of a pure white, nearly round, and about 10 lines in length. The greatest number found in any one nest was three; but the birds had evidently only just begun to lay (many of the holes being unfinished), so that we were unable to ascertain what is the usual number deposited. More than forty holes were opened, but only eleven eggs obtained. In the vicinity of every hole were numbers of pellets, formed of the wings and other indigestible parts of dragon-flies, butterflies, beetles, &c., which had been cast up by the Bee-eaters in the same manner as Hawks and Owls.

We endeavoured to keep two birds alive, which were caught in their holes, but unsuccessfully, for they died the next day.

3. Black-and-white Kingfisher (*Ceryle rudis*).

This bird is very common both in Upper and Lower Egypt, and remains in the country throughout the year.

Every suitable spot along the river bank is tenanted by a pair of Kingfishers, who seldom go far from home, and always evince a decided preference for some one particular perch, generally the dead branch of a tree, upon which they sit, side by side, when not employed in fishing. When seeking food, this bird flies a little distance, and then stops, remaining poised in the air, with fluttering wings and bill pointed downwards, until a fish comes within sight, when it drops like a stone, disappearing quite under the water. Having secured its prey, the Kingfisher flies off to his perch to eat it,—first, however, killing the fish by striking its head smartly on the ground several times. Another favourite article of food with this bird is a small bivalve mollusk which abounds in some of the canals in the Delta. The note is a twittering cry, which is seldom heard during the day; but towards evening they become more lively, chasing and calling to each other. When not fishing, they fly low, close to the surface of the water. The feathers of the occiput are elongated, forming a distinct crest, which is elevated when the bird is frightened. The sexes are alike in plumage. The irides are dark brown; the bill, legs, and feet black, the two outside toes being united for half their length.

The Black-and-white Kingfisher begins to breed about the commencement of April, and I extract the following description from my note-book of one of the first nests examined:—

"April 7th, 1862, Baroskour, near Damietta.—This morning a Kingfisher was seen near a likely-looking bank, and, on approaching it, another, probably the female, flew out of a round hole about 3 feet above the level of the river. It was just large enough to admit the hand; and after digging horizontally for about 4 feet, we arrived at the nest—an enlarged chamber, the bottom covered with small bits of dry dirt and broken fish-bones. The eggs were five in number, of a clear polished white, 1 inch 3 lines in length, 11 lines in breadth, slightly tapering from the middle towards each end. This peculiarity in shape was noticed in the first specimens, and was more or less observable in all those subsequently taken. The usual number is five, occasionally four, and now and then six."

XLI.—*Remarks on the Lesser Buzzard of South Africa and its Congeners.* By JOHN HENRY GURNEY, M.P., F.Z.S.

IN an article recently published by M. O. DesMurs in the 'Revue et Magasin de Zoologie,'* attention is called to the fact of the bird described and figured by Le Vaillant under the title of "Le Tachard" being in reality a Pern (*Pernis*), and not a Buzzard (*Buteo*), as has been frequently supposed to be the case. M. DesMurs mentions in this article the circumstance of Mr. G. R. Gray having come to this conclusion as long ago as in 1849, and I am able to add that Mr. Gray has recently expressed to me that he still entertains the same opinion.

I have myself no doubt that the "Tachard" of Le Vaillant, and consequently the *Buteo tachardus* of Daudin, is identical with *Pernis apivorus*, a species which I have twice received from the colony of Natal.

Most ornithologists have erroneously attributed the name of *Buteo tachardus* of Daudin to the Lesser Buzzard of South Africa, for which M. DesMurs now suggests the new specific appellation of *Buteo delalandi*. This is, as it seems to me, unnecessary;

---

* Vol. xiv. (1862) p. 49.

for I cannot but think that this small Buzzard is the "Rougri" of Le Vaillant (*Buteo desertorum* of Daudin), the description and figure of which appear to me to agree with the species now under consideration in all points except one, namely, that the cere and bill are *both* described as yellow, instead of the cere *only*. But may not this have been a mere *lapsus calami* of the author, copied by the artist into his drawing, which was probably made from a skin of which the bill was faded, or (as is frequently the case in skins brought from hot countries) in which the horny covering of the upper mandible had shelled off?

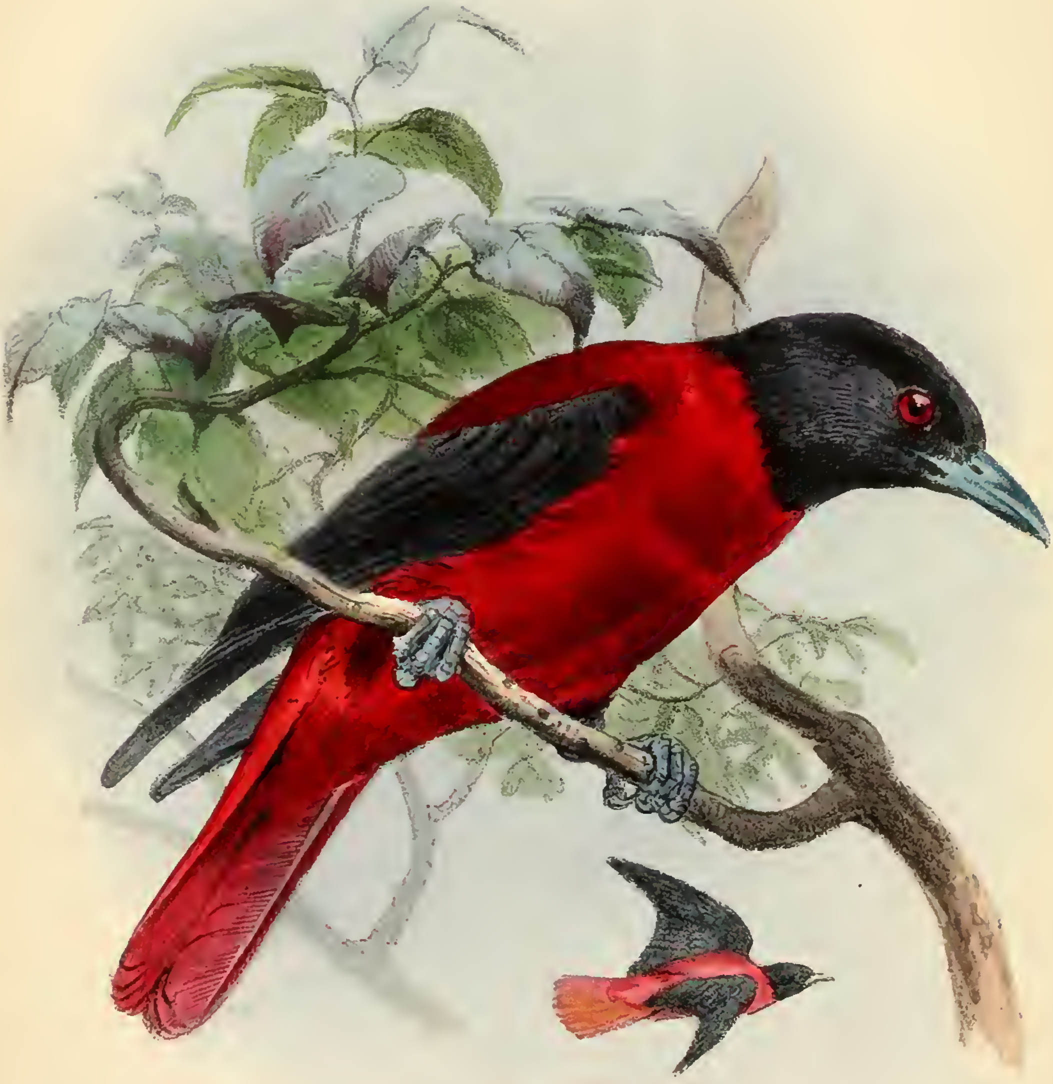
Such at least seems to me the probability, and with that view I consider the small Buzzard of South Africa as entitled to the specific name *desertorum*.

M. DesMurs expresses a strong opinion that the small Buzzard of South Africa is specifically distinct from that of North Africa (*Buteo cirtensis* of the "Exploration de l'Algérie"); but the only difference I can perceive between them is, that the South-African bird is usually less rufous, and is somewhat paler on the breast, which are hardly sufficient grounds for a specific distinction.

The geographical range of *Buteo cirtensis* (even if it be distinct from its South-African congener) is still very extensive, as it is found generally in North Africa, from Mogador to Egypt; and it also occurs in European Turkey, in Southern Russia on the Volga, at Smyrna, at Erzeroum, in Madras, and in Nepal.

The Indian specimens which I have seen, and also that from Erzeroum, are less rufous and more chocolate-coloured, especially on the under parts, than more western specimens. This darker form of colouring would seem to be as worthy of specific distinction as the paler-breasted race of South Africa, and it has been figured and described as distinct by Mr. Jerdon in his 'Illustrations of Indian Ornithology' (pl. 27), under the title of *Buteo rufiventer*.

M. DesMurs well remarks that *Buteo cirtensis* is closely allied to the large rufous Buzzard of North-eastern Africa, South-eastern Europe, and Asia. This larger species (*Accipiter ferox* of S. Gmelin, *Buteo rufinus* of Rüppell, *B. leucurus* of Naumann, and *B. canescens* of Hodgson) also extends as far east as India,



1/2.

J. Wolf, del et lith

M & N. Hanhart, Imp^t

PSAROPHOLUS ARDENS

but is not found further to the west than South-eastern Europe and North-eastern Africa.

M. DesMurs speaks of his *Buteo delalandi* as occurring in Madagascar: is it possible that some confusion may exist on this point between it and its nearly related but shorter-winged congener, *Buteo brachypterus* of von Pelzeln, first figured in the last number of 'The Ibis' (Pl. VIII.)?

Further observation may doubtless clear up this point, and also increase our knowledge of the other nearly allied races of Buzzards to which we have here referred.

XLII.—*Letter from* Mr. SWINHOE.

(Plate XIII.)

To the Editor of 'The Ibis.'

SIR,—I have just returned to England from Formosa, for change of air; and as, while there, I prosecuted my researches in natural history with some vigour, I have been enabled to bring with me some fine novelties from that hitherto unexplored island. Among other things in the ornithological line, I may mention a most lovely new species of Pheasant of the *Euplocomus* group, of which I was fortunate enough to procure both sexes,—a fine new *Urocissa*, a new *Megalæma*, two *Pomatorhini*, three *Garrulaxes*, an *Arboricola, cum multis aliis.* All these I intend bringing before the Zoological Society at their first meeting in November. But with regard to one of the novelties, perhaps the most beautiful thing I have brought, I should like to anticipate the introduction to the ornithological world by availing myself of the pages of 'The Ibis' to bring it forward. I refer to the accompanying Orioline form, belonging to the genus *Psaropholus*, to which *P. traillii* from Nepal and perhaps one other species belong. Both of these, however, are cast far into the shade by their Formosan representative. I subjoin a diagnosis of its characters, with the few notes I can at present supply. I shall be able to add further particulars when the mass of my collection reaches England.

PSAROPHOLUS ARDENS, Swinhoe. (Pl. XIII.)

P. coccineus; capite et cervice undique cum alis tibiisque nigerrimis; rostro pedibusque plumbeis.

Bill light cobalt; skin round the eye violet-grey; iris crimson-brown; legs leaden grey; soles and claws dingy. Head, neck, wings, and tibial feathers black; the rest of the plumage of a fine cochineal red, paler on the tail. Length 9¾ in.; wing 6¼; tail 4¼, somewhat rounded, of 12 feathers. Bill, along culmen, 1 in.; along edge of lower mandible, 1¼. Tarsi ·9 in.

The plumage of the first year is pale and dingy, the under parts being more or less white, with a few black streaks.

This bird is an inhabitant of the mountain-ranges of Formosa, frequenting the jungly bush of the exalted valleys, and displaying its gaudy tints among the gigantic leafy boughs of the far-famed *Laurus camphora,* which towers at intervals among its entangled fellows of the wood. In habits the Red Oriole nearly approaches its allies of the yellow group, and feeds, like them, on berries, chiefly those of figs. In summer it resorts to the highest ranges, some of which are perennially covered with snow (hence of its nesting I know nothing); in winter it returns to the more accessible mountains bounding the Chinese territory. Its notes are loud and harsh, as are those of the Yellow Oriole (*Oriolus chinensis*), which, however, has somewhat of a loud and not disagreeable song. In Formosa, as in China, the Yellow Oriole is a summer visitant, arriving in thousands, and literally swarming in the bamboo-groves of the south. During this season it spreads itself throughout all the seaboard and champaign country of Formosa. In China I have myself traced it as far north as Pekin; and it ranges into Amoorland, according to von Schrenk. I have no doubt that in its southern and brumal migration it passes through Siam (whence I have received specimens from Sir R. Schomburgk), and disperses its bands throughout the western side of the Bay of Bengal, where Blyth's Black-naped Oriole (*O. indicus*) hails from. This species Blyth himself now considers identical with the Chinese bird.

You must excuse me for digressing in this way from the subject of this letter; for, after all, my ideas regarding the two birds might be expressed in a very few words, viz. that whereas *Oriolus chinensis* alias *indicus* is a bird of the plains and migratory, *Psaropholus ardens* is a mountainous species peculiar to Formosa, resident on the island, and merely changing its home from a lower to a higher elevation, or *vice versâ*, according to the season; that both birds are Orioles, of somewhat similar habits, the one form having pink bills (*Oriolus* proper), the other having blue bills (*Psaropholus*), but both leaden-grey legs.

I remain, yours, &c.,
ROBERT SWINHOE.

London, September 1st, 1862.

XLIII.—*Contribution to the Breeding History of the Nutcracker* (Nucifraga caryocatactes). By E. SCHÜTT*.

AT the instigation of our highly respected ornithologist, Dr. Baldamus, I had already last year given all possible attention to, and offered a pretty high reward for, the discovery of the nest of the Nutcracker. For myself, indeed, I had no great expectation of realizing this wish; for, from the natural indolence of the mountaineers and the easy but sure profit they ordinarily make, any effort to induce them to search after something uncertain, even if a high reward is offered, usually fails. It is difficult besides to give the people a notion of the wished-for object: if one only shows them, as I did on previous occasions, a stuffed specimen, they pay but little heed to it. When I myself went to visit the places where formerly I had frequently observed the bird, on arriving at the top, I had only the satisfaction at every step of breaking through the highly frozen crust of a four-feet deep snow, and of stepping over a mass of snow-weighted branches; and, at last, after spending many hours in making my way back, I had to give up my intention after a short search. Some months later I received intelligence that the nest had been found, with young birds and eggs, but, on account of the advanced state of incubation, had not been brought to me! This spring I have been more fortunate, the mountains, being exceptionally free from snow at the present time, having particularly favoured my project. I beg my readers, however, to excuse my somewhat minute description. When one knows so little of the breeding of an animal, the slightest fact often has value.

In the course of an unsuccessful Capercally-chase (for with us the rut begins later than in Northern Germany), and accompanied by some day-labourers to whom I had promised a high reward for the discovery of the nest of the Nutcracker, I ranged over a south-eastern spur of the Kandel, about 3500 feet high, covered with young fir-plantations; but an hour's search produced no further result than that a quantity of squirrels' nests were thrown down from the trees. I then went with the people to an uncleared clump of firs, about 30 feet high, in which I imagined the nest would surely be. Whoever knows what such forests are, especially when on high mountains, will clearly see the impossibility, which we perceived after some hours, of making a regular passage through the dead branches and the thick wood. One of my people was already exhausted, and had given up his promised reward; and I myself, in my scratched condition, had formed the idea of leaving the good-for-nothing bird (as Herr Baldamus calls it) to its fate, when a Nutcracker flew out a few paces before us, without, however, uttering any cry. This inspired new courage, and, in the course of half an hour, I found the nest in the neighbourhood, on a tree 35 feet high, hard by a sledge-path,—but, oh disappointment! without eggs.

---

* Translated from the 'Journal für Ornithologie' for 1862, p. 125.

It stood about 25 feet high, close to the stem, and was difficult to recognize from below. The nest was found on the 19th of March; on the 23rd the first egg was laid, and on each third day the two others. After the bird had been three days without laying an egg, the boy, to my regret, took the nest with the eggs away.

At the first discovery of the nest, when we were quite near it, the bird was heard crying in the distance; and even when we had left it a mile off, it had not yet become quiet. At the taking of the nest, it first flew off as the boy climbed up, and, sitting on the summit of the same tree, intently watched the fate of its nest.

It must here be remarked that, of all the allied species, the Magpie alone breeds as early as the Nutcracker; but this is in the valleys, some thousand feet below. It is only to the Jay's nest and egg that those of the present bird bear any resemblance; but the Jay appears here only in the autumn, when on passage. Also, to the nest thus taken there is attached some down from the belly-feathers, which may be recognized with certainty as belonging to the Nutcracker.

Outwardly the nest consists of slender dry fir-sticks, to which cling beard-moss and lichens; it is interwoven with green fir-twigs, gathered apparently from the tree on which it stood. Very likely the same design exists here as in the case of many birds of prey, which garnish their nests with fresh leafy twigs. The outer materials are moss, tender tree-bark, and bast. The inner lining consists of beard-lichens, bast, and dry grass-stalks, forming a nearly hollow hemisphere, 4 inches 8 lines in diameter, and 2 inches 10 lines deep. The weight of the eggs varies, when full, from 10·27 grammes to 11·15 grammes; the length, from 14·75 lines to 15·75 lines; and the breadth, from 11 lines to 11·5 lines (Paris measure). The form of all three eggs is different, varying from an elongated to a bulging oval.

The ground-colour is a very pale bluish green, strongly contrasting with the bright buff-coloured (*lederfarbenen*) blotches equally distributed over the egg. The blotches are partly coarse, sometimes fine, and many run into one another; but they are smaller than in all the eggs of *Corvus* known to me, even in those of the Jay, though they have numerous spots standing thick and melting away, so that the ground-colour nearly disappears. On one egg only there is a strongish accumulation of blotches at the blunt end, but not in a zone-shaped form.

The smallest egg of the Nutcracker equals the largest Jay's, but bulges out more. The difference in the breadth amounts to 1 line.

The present eggs agree with the description given by the Baron König-Warthausen in the 'Journal für Ornithologie' for 1861 (page 39) almost entirely in size, as well as in ground-colour. The blotches, on the contrary, are numerous, and their colour leaves no trace of violet-grey nor greenish-brown perceptible in the magnifying-glass; so also the blackish-brown spots are wanting,—in which respects I should deem the eggs of Baron König-Warthausen as scarcely authentic.

I may remark, by the way, that the range of the Nutcracker during the breeding-time seems to depend on the presence of uncleared fir-thickets and beard-mosses, which last naturally require a certain height, dampness of the air, and mountain situation, according to climate.

Meantime I have found another nest, and shall wait until the laying is completed to be able to render a further account about its time.

Waldkirch, March 31, 1862.

XLIV.—*Review of the recently published Memoir of* Bewick*.

Two centuries have elapsed since Willughby and Ray first took to noting and cataloguing British birds, and since the worthy Sir T. Browne sketched and coloured the birds and fishes of Norfolk to illustrate Ray's edition of the 'Ornithologia.' Yet though the Norwich doctor had to complain that his drawings were never returned, we fear that his friend did not use them to such good purpose as to popularize his favourite study. It was the pages of Gilbert White and the woodcuts of Bewick which first beguiled the English schoolboy to the observation of our feathered friends. From Ray to Linnæus is a long, dreary interval—the dark ages of natural history in this country. "The boy is father of the man." Few men have ever attained eminence in science whose minds were not early attracted to the subject; and when style has happily combined with truth and nature to rivet the attention of childhood, no slight service has been rendered to the cause of natural history. Vast as has been the advance in systematic knowledge within the last half-century, how few of our living naturalists but must gratefully acknowledge their early debt to White's 'History' and to the life-like woodcuts of Bewick! Probably we shall not wrong the cultivated annalist of Selborne by giving the first place to Bewick. We are tempted to believe that for one studious schoolboy whose latent taste has been evoked by the former, a dozen have been led "how to observe" by conning over 'The British Birds' on a holiday afternoon in their father's library. Yet Bewick has not the slightest claim to rank with Gilbert White as a naturalist. White was what Bewick never was, a man of science; but, if no naturalist, Bewick was a lover of nature, a careful observer, and a faithful copier of her ever-varying forms. In this, and this alone, lies his charm.

---

* Memoir of Thomas Bewick, written by himself. Newcastle, Ward; London, Longman and Co.

Thomas Bewick was one of the many self-made men of Northumberland—a county whose sons, no longer absorbed in border-warfare, have devoted their massive, rugged intellects to the battle with nature and the unfolding of her secrets. Newcastle can boast of having earned in two successive years the gold medal of the Royal Society*. But our business here is not with her Stephensons and Armstrongs, nor yet with her artists, as Martin and Lough, but with Bewick and his works. He was emphatically the father of Northumbrian naturalists—a goodly family, as the names of Prideaux-Selby, Albany and John Hancock, Hewitson and Alder, still living, may testify.

The Tyneside and Berwickshire Naturalist Clubs (the latter really a Northumbrian society) will, we may well expect, rear many worthy successors in the field; and the volumes of their Transactions have already supplied no inconsiderable contributions to our zoological literature. We have frequently known these clubs to muster upwards of fifty members on excursions among the western moors, when many a racy anecdote of old Bewick has been told by those whose boyish interest had been roused while watching the veteran's chisel and listening to his old-world lore.

We could have wished that more of his characteristic traits, and some recollections of him by others, had been imported into the present volume. One excellence, at least, this memoir has—the man is permitted to speak for himself; nor has the filial reverence of the editor permitted her once to check the pleasant garrulity of the kindly old man, even when he has digressed into long chapters on his Utopia in Church and State, with which he was wont to beguile his fancy while his hand was busily at work on his blocks.

The earlier chapters of the autobiography (for such it is, in the form of letters to his daughter) are the most interesting, as tracing the early development of his love of nature and of drawing. Bewick was fond of expressing his dislike of a mere "three-pair-of-stairs-garret naturalist," and he certainly had learned *his* lessons in the field, not in the closet. The son of a plain Northumbrian farmer, he was sent first to the village dominie, and then to a school of a higher class, kept by the clergyman of the parish. But he showed no love for bookish learning, preferred Robinson Crusoe to Latin grammar, and, above all, to sketch birds and beasts in the margin of his books. He thus traces the development of his schoolboy taste as an artist:—

---

* Awarded to Messrs. H. Lee Pattinson and Albany Hancock.

"At that time I had never heard of the word 'drawing;' nor did I know of any other paintings besides the king's arms in the church, and the signs in Ovingham of the Black Bull, the White Horse, the Salmon, and the Hounds and Hare. I always thought I could make a far better hunting-scene than the latter; the others were beyond my hand. I remember once of my master overlooking me while I was very busy with my chalk in the porch, and of his putting me very greatly to the blush by ridiculing and calling me a conjuror. My father also found a deal of fault for 'misspending my time in such idle pursuits;' but my propensity for drawing was so rooted, that nothing could deter me from persevering in it; and many of my evenings at home were spent in filling the flags of the floor and the hearthstone with my chalky designs.

"After I had long scorched my face in this way, a friend, in compassion, furnished me with some paper upon which to execute my designs. Here I had more scope. Pen and ink, and the juice of the brambleberry, made a grand change. These were succeeded by a camel's-hair pencil and shells of colours; and, thus supplied, I became completely set up; but of patterns or drawings I had none. The beasts and birds, which enlivened the beautiful scenery of woods and wilds surrounding my native hamlet, furnished me with an endless supply of subjects. I now, in the estimation of my rustic neighbours, became an eminent painter, and the walls of their houses were ornamented with an abundance of my rude productions, *at a very cheap rate.* These chiefly consisted of particular hunting-scenes, in which the portraits of the hunters, the horses, and of every dog in the pack were, in their opinion *as well as my own,* faithfully delineated. But while I was proceeding in this way, I was, at the same time, deeply engaged in matters nearly allied to this propensity for drawing; for I early became acquainted, not only with the history and character of the domestic animals, but also with those that roamed at large."

Passionately attached to the hounds, yet his tender and feeling nature revolted from witnessing the death of a hare; and he thus recounts his first and last capture of a bird, which he had hit with a stone:—

"The little victim dropped from the tree, and I picked it up. It was alive, and looked me piteously in the face, and, as I thought, could it have spoken, would have asked me why I had taken away its life. I felt greatly hurt at what I had done, and did not quit it all the afternoon. I turned it over and over, admiring its plumage, its feet, its bill, and every part of it. It was a Bullfinch. I did not then know its name, but I was told it was a 'little Matthew Martin.' This was the last bird I killed; but many indeed have been killed since on my account."

The worrying of foxes, and the baiting of foumarts, otters, and badgers (all much more abundant then than now), did not awaken similar tender feelings; there was some resistance and retaliation, and in following these sports Bewick began to notice rare birds.

"In the vermin-hunting excursions in the depth of winter, while the whole face of nature was bound in frost and covered with deep snow, in traversing through bogs, amidst reeds and rushes, I have often felt charmed with the sight of birds, flushed and sometimes caught by the terrier dogs, which I had never seen nor heard of before; and I am still in doubt whether some of them have not escaped being noticed as British birds."

Who shall say how many American stragglers have not thus escaped being immortalized in British lists? Bewick always believed he had met with one of the Jacanas (*Parra*) in this way. With our smaller birds he cultivated more intimate acquaintance, by getting up before the servants and ensconcing himself, especially during snow-storms, snugly in the cow-shed, where, he says,

"I watched the appearance of various birds which passed the little dean below, and which the severity of the weather drove from place to place in search of shelter. With the sight of my intimate acquaintances, the Robins, Wrens, Blackbirds, Sparrows, a solitary Crow, and some others, I was not much attracted, but always felt an extreme pleasure and curiosity in seeing the more rare visitants, such as the Woodcock, Snipe, and other waders, with the Redwings, Fieldfares, &c., make their appearance."

To these morning studies we probably owe many of his inimitable winter-pieces, with snow, of which he was so fond. His intimate acquaintance with every effect of natural scenery, together with the ready adaptation of wood-cutting to subjects where masses of light are required, made him most happy in these devices, as may be seen in the figure of Death in a Lapland sledge, drawn by goats, at p. 104 of this volume.

Bewick's parents had happily sufficient discernment to appreciate the bent of their son's genius, and accordingly apprenticed him to a Mr. Beilby, a general engraver in Newcastle. Here young Bewick had to practise the coarser departments of every kind—steel seals, blocking out wood for billheads, etching sword-blades, door-plates, coffin-plates, cards, clock-faces, and ornamental silver. But in all this we do not catch a glimpse of the higher department of engraving. Landscape or historical plates were never thought of; and our author tells us he never had a lesson given him by any one in any kind of drawing. "I was never a pupil to any drawing-master, and had not even a lesson from William Beilby or his brother Thomas, who, along with their other profession, were also drawing-masters. In the later years of my apprenticeship my master kept me so fully employed, that I never had any opportunity for such a purpose, at which I felt much grieved and disappointed." All honour, then, to the aptitude with which he has repeated the lessons of Dame Nature!

His apprenticeship past, and crossed in love, Bewick took to wandering over the hills and through the towns of Scotland, in a better spirit than the great lexicographer, and with a kindlier and happier remembrance. He tried London; but, though well received, and with abundant offers of patronage as an engraver, his heart was in the North, with its simple peasantry, its heather, and trout streams; and, thoroughly disgusted with men and manners in the great metropolis, describing its engravers as a "saucy, ignorant, and impudent set" ("the ignorant part of the Cockneys called me Scotchman,"—though, he adds, he was not offended even at this insult to his border pride), he carried back to his dear North experience and engagements for years to come.

He now began to devote his attention wholly to improvements in the art of wood-cutting, which had remained stationary since the days of Durer and Holbein. His first difficulties arose from the carelessness of the printers, and the clumsiness of the common pelt balls then in use for inking the blocks. To remedy this, he carefully shaved down all the edges of his blocks. His next difficulty was worse to surmount, and that was to lower down the surface on all the parts he wished to appear pale, so as to give the appearance of the required distance,—a process which may be considered as one of Bewick's most important discoveries in the art of wood-engraving. Next his attention was directed to some specimens of cross-etching by Albert Durer; and in his attempts to restore this lost branch of his art, he was led to make successful experiments in the use of two blocks. In some of his large plates he applied this second improvement successfully, printing the outline from one block, and applying the impression, while wet, to another devoted to shade and dark effect alone. Although this art of *chiaroscuro* is of early Italian invention, yet Bewick's method of applying it was so original as to give him a fair share in the title of inventor.

In 1777, Bewick entered into partnership with his old master, Beilby; and, in 1779, obtained the medal of the Society of Arts for his woodcuts illustrating Saint's edition of 'Gay's Fables.' In 1785 he commenced his 'History of Quadrupeds,' drawing such animals as he knew from nature and memory, and copying others from Smellie's abridgment of Buffon. During the course of this work he went on foot to Chillingham to draw a specimen of the celebrated wild cattle; which, creeping on hands and knees, he at length accomplished. His partner, Mr. Beilby, supplied all the letter-press for this work,—Bewick furnishing him with what he knew of animals in conversation or by memoranda, and "blotting out in his manuscript what was not truth."

Immediately after the publication of his 'Quadrupeds,' he commenced his 'British Birds.' "I made up my mind," he says, "to copy nothing from the works of others, but to stick to nature as closely as I could; and, for this purpose, being invited by Mr. Constable, the then owner of Wycliffe, I visited the extensive museum there, collected by the late Marmaduke Tunstal, Esq., to make drawings of the birds." "As soon as I arrived in Newcastle, I immediately began to engrave from the drawings of the birds I had made at Wycliffe; but I had not been long thus engaged, till I found the very great difference between preserved specimens and those from nature,—no regard having been paid at that time to fix the former in their proper attitudes, nor to place the different series of the feathers so as to fall properly upon each other." "I was on this account driven to wait for birds newly shot, or brought to me alive, and in the intervals employed my time in designing and engraving tail-pieces or vignettes." Some traces, however, of the Wycliffe museum yet remain in this work; among which, we may mention the Great and Little Bustards and the Red-breasted Goose, which Bewick had never the opportunity of seeing in life. It may be interesting to note that the treasures of the Wycliffe Museum were afterwards transferred to Newcastle, where they may be seen in the Museum of the Literary and Philosophical Society, having a double value, both as the originals of Bewick's work and as being the oldest collection of stuffed birds now in existence. Many of the specimens, still in good preservation, were mounted at least one hundred years ago. Stiff or distorted as they often are, they may yet bear comparison as works of art with many much more recent specimens in the British Museum.

The first volume of the 'British Birds' was published in 1797, Mr. Beilby undertaking the letter-press, but being much more assisted by Bewick than in the former work. At the completion of the first volume they dissolved partnership, and Bewick tells us he "was obliged from necessity, not choice, to commence author." "As soon as each bird was finished on the wood, I set about describing it from my specimen, and at the same time consulted every authority I could meet with to know what had been said; and this, together with what I knew from my own knowledge, were then compared; and in this way I finished, as truly as I could, the second volume of the 'History of Birds.'" This was published in 1804.

We cannot but regret that the Memoir before us gives us no further insight into Bewick's labours, being henceforth entirely filled with disquisitions foreign to art and natural history, and intended rather for his own family than for the public. He lived till 1828, and reached the age of 75, having occupied his later years partly in filling up gaps in his 'History of British Birds,' as new editions were called for, and also in collecting materials and engraving blocks for a 'History of British Fishes.' The vignettes and tail-pieces for this were completed before his death. Seventeen of the engravings of fishes are appended to the memoir, and a few of the vignettes are interspersed. These are all in Bewick's happiest style, and only lead us to regret that so many of his sketches have been withheld. If Bewick's hand grew old, his fancy retained all its truth and beauty till the last. It is no secret how many of his later vignettes have never been published, or even printed. Yet it cannot be expected that, as the generation to whom Bewick was personally known is passing away, these sketches will have an equal interest in a few years. The price at which the memoir has been published is such as might have well warranted the introduction of all his unpublished works. Bewick had also prepared likenesses of many of his friends who are mentioned in the memoir. The introduction of these would have largely added to the *local* interest of the work, before the worthies of the past generation have quite gone out of mind. Still more would that interest have been heightened, could we have had some notes on the vignettes which stud the whole of Bewick's works. His last vignette was a sketch of the house in which he was born, with a prophetic picture of his funeral procession emerging, and a ferry-boat waiting to convey the coffin across the river to Ovingham Church. So through life he always delighted to mingle in his drawings personal and local associations. Many of his tail-pieces are admirable landscapes of historical Northumbrian localities, now fast perishing under the advance of coal and iron; and there is scarcely a vignette which does not contain a likeness of some character familiar fifty years since on Tyneside, perchance an old village hero of "the '45," a popular mendicant, a ballad-singer, a "daft Jamie," or notorious poacher. One of his humorous pieces is the devil whipping the driver of a coal-cart under the gallows. Bewick, having detected his coalman in the act of cheating him, revenged himself by drawing a striking likeness of him, and then, calling him in, showed him the picture, with this pithy admonition:—"Now then, if thou goes on as thou has been doing wi' me, the devil will get thee and tak thee to the gallows." Many such stories are told by Mr. Atkinson in his sketch of Bewick, published more than thirty years since. Indeed, we may consider him to have been, among engravers, what Hogarth was among painters, and Burns among poets. His fancy was unpruned by academic instruction; but who can tell a story like him in so few lines? He embodies the quaintness of Quarles with the depth of Holbein's meanings. He has all Burns's tenderness of disposition, quick perception of the ridiculous, and power in portraying it, and, above all, his admiration for and understanding of nature. In all his designs (and they may be counted by hundreds) there is real poetry. Witness, in the volume before us, the poacher's drunken wife in her hovel, with her ragged urchins on the floor, the salmon spear, and the ballad-sheet of the last dying speech and confession on the wall; the hobgoblin, formed from a gnarled and fantastically twisted trunk, which appals even the dog; the clown between his two wayward pigs; an ass frantically obstinate by the upsetting of the bee-hives he has disturbed, and vainly rubbing off his tormentors against their own hive; a gentleman's son and a ragged urchin fishing together, the former without a nibble, while the switch and crooked pin have just landed a fine trout; a wooden-legged pensioner stuck in a broken stile; a Tyne salmon-fisher repairing his draw-net. These and scores of others are quite enough to give their author a place as one of nature's artists, for he had that truth in familiar things which is also real poetry.

Though there is much more superficial splendour in more modern works, yet none have surpassed Bewick in fidelity to nature; and this is shown in a remarkable way in his distant flights of birds, when the species can always be recognized, as in the vignette of two crows persecuting a hawk, while a pair of magpies enjoy the fun.

Bewick's guileless love for nature was exemplified in the smallest things. He could not bear the idea of wanton destruction of life, or of harsh treatment of the lower animals. His last contemplated work was to have been a series illustrative of the claims of the horse on humanity, of which the well-known 'Waiting for Death' is the only finished plate. He would drily remark to youths shooting swallows, that they were destroying creatures of infinitely more use than themselves. But we are becoming garrulous as the old man himself, and must conclude this notice with the expression of our satisfaction at receiving any addition to our souvenirs of Bewick, and our regret that thirty years have elapsed since the memoir ought to have been published. We could have wished to have seen all his chisel has left, before its interest has become merely antiquarian, and, in place of many chapters of political and theological dreams, some reminiscences, such as Mr. A. Hancock, amongst others, could have supplied, illustrative of the man and his works. There is no list of his publications attached, but this omission we have ventured to supply in a note*, as far as we can,

---

* The following is a list of Bewick's Works:—

Gay's Fables. 1779. Saint.

Select Fables. 1783. Saint.

History of Quadrupeds. Editions of 1790, 1791, 1792, 1800. Hodgson.

History of Quadrupeds. 5th edition, 1807; 6th, 1811; 7th, 1820. E. Walker.

[The Bats are omitted in the first edition. The fourth, in 1800, is the best, and is the first with the Linnean names appended. In 1818, twenty-five copies were taken on 4to paper.]

History of British Birds. Vol. i. 1797. Hodgson.

History of British Birds. Vol. ii. 1804. Walker.

[The second, third, and fourth editions were published in 1805, 1809, and 1816, by Walker. In 1800 a small edition of the *Land Birds*, plates and vignettes only, was published, without letter-press; and in 1817 twenty-five copies of the whole work, *without letter-press*, were published in 4to. Owing to this circumstance and to the great care employed in from other sources. Though there is much here which does not directly bear on the subject-matter of this Magazine, yet ornithologists owe too much to Bewick to grudge, unless we grievously mistake, this homage to his memory. We, who have reaped the fruits of his early and unaided labours, will not be the last to acknowledge our obligation.

XLV.—*Recent Ornithological Publications.*

1. English Publications.

Messrs. Groombridge and Sons are re-issuing Mr. Morris's 'History of British Birds' in a cheaper form. Eight coloured plates and accompanying letter-press of thirty-two pages are now given for a shilling. It can hardly be expected that at this price the illustrations should attain any high degree of excellence, but we may say that they are generally recognizable; and we cannot but be well satisfied at the indication thus afforded of an increasing popular taste for natural history; for it is only the prospect of a large sale that could induce the publishers of the work to issue it at so reduced a rate.

Another recent publication on British ornithology* has issued from the depository of the Society for Promoting Christian Knowledge. The Rev. C. A. Johns expressly disclaims all idea of proposing a substitute for 'Yarrell,' but yet ventures to hope that his work on 'British Birds in their Haunts' may supply "the lover of nature with a pleasant companion in his country walks, and the young ornithologist with a manual which will supply his present need, and prepare him for the

---

taking off these impressions, they are vastly superior to any others. In 1825, 100 copies more were taken off, without letter-press. The 5th and 6th editions were published in 1820 and 1826 respectively.]

Goldsmith's and Parnell's Poems, illustrated by Bewick. Editions 1795 and 1802. Bulmer.

Somerville's 'Chase,' illustrated by Bewick. 1796 and 1802. Bulmer.

Æsop's Fables, by Bewick. Edits. 1818 and 1824. Walker.

* British Birds in their Haunts. By the Rev. C. A. Johns; with illustrations on wood, drawn by Wolf, engraved by Whimper. London, 1862, 1 vol., 626 pp.

study of more important works." Mr. Wolf's woodcuts should be a great inducement to those who want some popular and readable information about our feathered tribes in this country to select Mr. Johns's volume; but we cannot believe that the concise characters of either genera or species as here given are likely to be of much assistance to the student in determining doubtful species.

Dr. Bree has almost disarmed us as critics of his work, by the graceful compliment he has lately paid to this Magazine. Though we have occasionally ventured to differ from the opinions he has put forth, we have never done so without regret, and we have always borne testimony to the excellence of his intentions. It is only due to the worthy Doctor that we should now add a word in praise of the good temper in which he has taken our remarks, unfavourable as they may have sometimes been to his treatment of the subject. That his labours would prove highly useful,—if only in directing attention to a branch of the study, like the Ornithology of Europe, which has hitherto been so much neglected in this country,—we have from the first maintained. Each succeeding part of the work shows increasing care on the part of its author.

While modesty prevents our enlarging upon the lately completed 'Catalogue of a Collection of American Birds'[*], our duty, as a faithful chronicler of ornithological bibliography, obliges us to notice the fact of its publication. In the hope that our work may be found useful to those who are interested in the ornithology of the New World, we have entrusted it to an indulgent public. More than this our readers will not expect us to say.

Mr. Mason's volume on Burmah[†], published at Rangoon in 1860, has only recently come under our notice. Mr. Mason does not appear to have much scientific knowledge, and relies chiefly upon Mr. Blyth, Major Phayre, and other well-known authorities for his information. He (or his printer) make sad mistakes when scientific terms are used. As far as regards ornithological matters, the volume seems principally a compilation, but may still be worth referring to by those who want to learn something of Burmah and its productions.

---

[*] Catalogue of a Collection of American Birds belonging to Philip Lutley Sclater, M.A., Ph.D., F.R.S. London: Trübner and Co.

[†] Burmah, its People and Natural Productions; or, Notes on the nations, fauna, flora, and minerals of Tenasserim, Pegu, and Burmah, with systematic catalogues of the known mammals, birds, fish, reptiles, insects, mollusks, crustaceans, annelids, radiates, plants, and minerals, with vernacular names. By the Rev. F. Mason. Rangoon, 1860. London: Trübner and Co.

2. French Publications.

The 'Revue et Magasin de Zoologie' for the present year has already presented us with four valuable papers by MM. Jules Verreaux and O. DesMurs. On one of these by the gentleman last named, relating to the 'Tachard' of Le Vaillant, we have already given Mr. J. H. Gurney's remarks*. Of the joint attempt of these two ornithologists to identify *Falco eleonoræ* of Gené with the veritable *Falco concolor* of Temminck, we can only say, we are not yet convinced, though we have been for some time acquainted with the serious suspicions that have prevailed upon this subject in several quarters. We gladly welcome the same naturalists' additions to their previous 'Catalogue of the Birds of New Caledonia,' and further notes on the species previously mentioned. The number of New Caledonian birds now known appears to be eighty-one. But their third paper also conveys some intelligence which demands serious attention. It is a description of a new species of *Synoicus* (lege *Synœcus*), founded on a single example taken in Lombardy! We have only to express our hope that Dr. Bree will not include *S. lodoisiæ* in his promised Supplement, on the strength of this very singular capture. It is hard enough for the unbelieving spirit of a naturalist to credit the fact of an Australian bird of any kind occurring in Europe; but that the first example of a *new species* should take the trouble to desert the Antipodean continent, and divulge its existence to civilized man for the first time in the middle of the kingdom of Italy, quite surpasses our belief. *Credat Judæus Apella, non nos*! C'est un peu trop fort, Messieurs nos confrères!

---

* See *anteà*, p. 361.

3. German Publications.

Of the 'Journal für Ornithologie' we have received the first three numbers for the present year, and, more lately, the sixth and concluding part of last year's volume, which has been long delayed for the sake of a plate representing the recently recognized Wren of the Faroë Islands and Iceland (*Troglodytes borealis,* Fischer), which is in many respects a very interesting little bird. When all the articles merit attention, it is almost an invidious task to name those most deserving of praise. The last number in particular contains three important papers by Dr. Cabanis, Dr. Gundlach, and others. In the second number for this year, Herr Preyer commences a paper on the Great Auk (*Alca*—or, as he prefers to call it, *Plautus—impennis*), which, we suppose, is the work formerly announced (see *anteà,* p. 297). As yet he has treated of little else than its systematic position. Herr E. Schütt also furnishes an account of his discovery of the nesting of the Nutcracker (*Nucifraga caryocatactes*), of which, on account of the interest taken in this subject by English oologists, we have given a translation in our present Number. In the first number for 1862, Professor Blasius has some remarks on the Great Northern Falcons, from which it appears that he now acquiesces in the views taken by Mr. John Hancock on this subject. We are greatly pleased to find that the opinion of our countryman, to which we lately called attention*, is adopted by so high an authority.

The eighth part of Herr Bädeker's oological work has been delivered to subscribers in England. We must repeat our regret that so little attention is *apparently* paid to the authentication of the specimens figured. In the present number there is a representation of an egg of *Haliaëtus albicilla* with deeply coloured spots, and the accompanying letter-press merely mentions that such eggs are rare. Now we do not venture to proclaim that they may never occur, but we are not aware of any recorded proof of the accuracy of the above assertion, nor have we ever seen an egg of this species marked with any true colour.

---

* Ibis, January 1862, p. 45, "Review of the new Continuation of Naumann."

Mr. Hewitson, indeed, has twice over figured (Br. Ool. pl. xlv., and Eggs B. B. 1st ed. p. ii. fig. 2) one specimen tinged with rust-colour, but he has subsequently suggested (Eggs B. B. 2nd ed. p. 17) that the markings thereon were only dirt-stains. This is probably the case, supposing the egg to be really that of the Sea Eagle—a fact by no means certain, if, as we have been informed, all that is known about it is that it came from the island of Hoy, where the Golden Eagle used to breed a few years ago.

4. Scandinavian and Russian Publications.

We are informed that a third series of the 'Naturhistorisk Tidsskrift'—formerly well known under the editorship of Prof. Kröyer, but which ceased to appear about twelve years ago—has been commenced. This continuation is conducted by Prof. Schiödte, and its second number contains "Some Observations on the Birds of Denmark, especially as regards Vendsyssel" (a district in the northern part of Jutland), by Herr Fischer of Copenhagen. The portion of the paper published treats only of the birds of prey; but its author adds two species to the fauna of that country, though one of them, *Strix scops*, having been taken only on board a steamer in the North Sea, can hardly be considered a legitimate addition. The other, *Circus pallidus*, was obtained on *terra firma*, and so far may be justifiably enrolled as an occasional visitor to Denmark, if it has not been, as Herr Fischer considers, formerly overlooked in Jutland.

The 23rd volume of the 'Contributions to the Knowledge of the Russian Empire'[*], published by the Imperial Academy of Sciences of St. Petersburg in 1861, contains Prof. Radde's account of his travels in Eastern Asia from 1855 to 1859. In the narrative of the four expeditions made by this active explorer during this period will be found very many observations on natural history of all sorts, and in particular frequent notices of the occurrence of birds, many of which are of very great interest. The times of the appearance of migrants going north and south appears to have been always carefully observed. The first arrival in Transbaikalia, after the long winter of 1856, were the Siberian Daw (*Corvus* [*Monedula*] *dauricus*) on the 6th of March, and the Great Bustard (*Otis tarda*); after which appeared *Syrrhaptes paradoxus*, already in pairs, *Falco tinnunculus*, *Falco æsalon*, *Accentor montanellus*, &c. On the 30th April the first Swallow appeared; but the *Syrrhaptes* had at that period already commenced to hatch its eggs. Those who wish to become acquainted with the proceedings of many of the rarer European species should not fail to make themselves acquainted with Herr Radde's interesting narrative of his exploration of these little-known countries.

---

[*] Beiträge zur Kenntniss des Russischen Reiches und der angrenzenden Länder Asiens, vol. xxiii. St. Petersburg, 1861.

5. AMERICAN PUBLICATIONS.

We cannot expect much from our ornithological brethren on the other side of the Atlantic while the present deplorable struggle between the North and South continues, but our readers will be glad to hear that Prof. Baird seems to pursue his even course at the 'Smithsonian,' in spite of the din that must be resounding in his ears at Washington, and that his letters show no symptoms of any disposition to quit the paths of science. The only contribution to our branch of zoology we have to notice since we last addressed our readers on "American publications," is the continuation of Mr. Elliot's 'Monograph of the Pittas,' of which two additional numbers are now ready.

XLVI.—*Letters, Extracts from Correspondence, Notices, &c.*

WE have received the following letters:—

A l'Editeur de 'l'Ibis.'

Adoa en Abyssinie, 30 Nov. 1861.

MONSIEUR,—Me voila une autre fois en route d'exploration en Afrique. Parti au mois de Mai de Souez par la voie de Djeddah, je me suis rendu d'abord dans l'archipel de Dahalak, près de Massowa, où nous avons pu recueillir beaucoup d'objets ornithologiques, mais, excepté des différentes espèces des œufs (*Larus crassirostris*, *Phaëton æthereus*, *Ardea brevipes*, *A. schis-*

tacea, Acrocephalus stentorius, &c.), rien de nouveau pour moi. Au mois de Juillet nous partâmes ensuite dans le pays des Bogos, situé entre l'Abyssinie et Souakim, et nous passâmes la saison des pluies. C'est un plateau de 1000 pieds d'élévation, arrosé par un torrent très considérable—l'*Ain saba* des indigènes—avec un climat assez sain, et plein de végétation magnifique. Le fauna y est rapproché de celui d'Abyssinie, mais j'ai eu le bonheur d'y ramasser bien des choses intéressantes, surtout dans les genres de Faucons, des Hirondinacées, et quelques *Sylviæ* et *Fringillæ* qui me paraissent inconnus jusqu'au présent. Pour le moment il me manque le temps de vous en donner des renseignements plus détaillés. Dans le commencement de ce mois-ci je me suis rendu par les provinces septentrionales d'Abyssinie, le Flamesen et le Seraui, en Tigré, après avoir passé le fameux fleuve Mareb, et après quelques visites des pays bas du Barca, vers la province du Taka. Je pense de partir bientôt d'ici vers le Takasseh et les montagnes de Semen et le sud d'Abyssinie. De l'intérieur d'Afrique je ne me manquerais pas de vous donner un petit rapport sur mes travaux et mes découverts.

Votre tout dévoué, etc.,
FREIHERR TH. DE HEUGLIN.

To the Editor of 'The Ibis.'

SIR,—I send a few notes on the nidification of *Cuculus canorus*. Though I have taken many eggs of this species, yet I am not at present a convert to the new theory that the colour varies according to the nest selected. The variation, I believe, arises from the same causes as in many other sorts of eggs: take *Anthus arboreus* or *Sylvia atricapilla* for instance. My experience, however, is chiefly confined to the nests of *S. arundinacea* and *S. phragmitis*. The following are the dates of Cuckoo's eggs which came under my observation this season:—

May 5, in nest of *Fringilla chloris*, which contained a fresh Cuckoo's egg only, yet the Greenfinch flew off the nest.

May 22, in *Sylvia phragmitis*, with three eggs, all fresh.

May 28, in *Sylvia arundinacea*, and four eggs, incubated.

June 3, in *Sylvia phragmitis*, and two eggs, fresh.

June 9, in *Sylvia arundinacea,* and two eggs, fresh.

June 30, in *Sylvia phragmitis,* and two eggs, incubated.

All these were found in the same locality, and the last five within a quarter of a mile, or rather less, of each other; the time extends nearly over May and June. A curious circumstance occasioned the loss of the specimen found May 22. It was near an island, in a situation where no person or quadruped could possibly reach it, not even a rat. The keeper who found it lifted out the Cuckoo's egg, replaced it with care, and, according to usual custom, came to fetch me. He was absent about half an hour; when he returned, we found that the *S. phragmitis,* owner of the nest, had turned out the intruding Cuckoo's egg, and in so doing had broken it, as its own eggs were splashed with the yelk. This circumstance, I have strong reason to believe, became known to the Cuckoo, who, six days after, laid another egg not far off. The last egg (June 30) showed much less colour than the previous one, indicating a later deposit of the bird.

My friend Mr. Alfred Newton has, at the Zoological Society's meeting, April 8, 1862, investigated the subject of the hen *Fringilla incerta,* taken near Brighton, March 13 last. I will, therefore, only add, that a previous cock of great beauty, belonging to Mr. Swaysland, Brighton, was recorded by me in 'The Ibis,' April 1860, p. 201; and that though these are the only two I have myself seen, yet several others are said to have been obtained by Mr. Swaysland near Brighton, but were not much noticed at the time, and no record kept of them.

I am, Sir, yours, &c.,
GEO. DAWSON ROWLEY.

5, Peel Terrace, Brighton, August 27, 1862.

Mr. Blyth, in a letter dated Calcutta, May 8 last, sends us the following notes relating to No. 13 of 'The Ibis:'—

P. 19. *Pratincola leucura,* nobis, was lately obtained abundantly by Dr.Jerdon in the vicinity of Caragola, on the main stream of the Ganges; also *Ruticilla burnesii,* nobis, *Locustella nævia,* and a new Saxicoline form (*Rhodophila melanoleuca*, Jerdon). This is not much unlike *Pratincola ferrea* of Hodgson in structure, but in habit very different from the *Pratincolæ,* as it keeps to the interior, and not to the tops, of the wild-rose bushes (*Rosa involucrata*) so abundant in all that region. It is of a shining black above, and pure white below. The young of *Pratincola leucura,* in their speckled nestling plumage, were observed in plenty; whereas the species common about Calcutta, *Pr. indica,* nobis, is certainly a migrant. Mr. Hodgson terms this species *Pr. saturatior,* which expresses the reverse of its distinction in colouring from *P. rubicola* of Europe. From the latter, however, I may remark, it differs much in its note. Dr. Jerdon also obtained there the true *Caprimulgus mahrattensis,* Sykes (to which my *C. arenarius* from Scinde must be referred), a bird not previously met with in Bengal.

P. 36. Not only is *Haliaëtus leucogaster* a noted robber of the Osprey, but also *H. fulviventer* (v. *macei*) not unfrequently does the same act.

P. 55. *Phylloscopus nitidus,* nobis (*Musicapa nitida*? Latham), is as totally distinct as any species can be from the *Motacilla proregulus* of Pallas. Why should *Phyllobasileus* (1851–2?) take precedence of my *Reguloides* (1847?).

I now refer to this group the following species:—

1. *R. pulchra* (*Abrornis pulcher* et *abrochroa,* Hodgson), S.E. Himalaya.
2. *R. trochiloides* (*Acanthiza trochiloides,* Sundevall; *Phyllopneuste reguloides,* nobis), N. India generally, also Burmah.
3. *R. viridipennis,* nobis, Sikkim and Burmah.
4. *R. superciliosa* (Gmelin), (*proregulus* of Pallas).
5. *R. chloronotus* (Hodgson), Himalaya and China.

Ph. nitidus, nobis, belongs to my restricted genus *Phylloscopus.*

N.B. *Sylvia javanica,* Horsf., is referred to *Zosterops* in the India House Catalogue (*vide anteà,* pp. 66, 69).

P. 83. I consider *Aquila bifasciata* to be a phase of plumage of *A. imperialis.* *A. fulvescens* of India is distinct from *A. nævioides* of Africa, which is larger and more robust; *A. hastata* is also a good species. I presume that *A. bellicosa* of Africa is identified with *A. bonellii,* and *A. morphnoides* of Australia with

A. pennata. This bird, in India, has always a rudimentary crest. I obtained it near Moulmein. But I do not approve of classing the former in *Hieraëtus.*

P. 91. For *Francolinus perlatus* read, "the *Perdix oculea* of Hardwicke's illustrations." The common Pegu Francolin (*Fr. phayrii,* nobis) I consider to be distinct from *F. perlatus* of China (and now of Mauritius). It is less stout, and the male has more developed spurs; but the two are very similar in plumage.

P. 92. *Falco sacer* proves to be not uncommon in the extreme N.W. of India, in the Sulimani range, &c. This, with *F. cherrug, F. lanarius,* &c., are emphatically desert Falcons, as the *Hierofalcones* are Arctic, and the Peregrine group might be termed cliff Falcons. To these desert Falcons Gould's *Hieracideæ* (the adult and young of apparently the same species figured as different) approximate nearly; and surely, also, those antipodal species that have been ranged in *Hierofalco.*

P. 93. I now think that *Oriolus indicus* and *O. chinensis* are the same, but I want better Chinese specimens to judge from. I obtained both *O. indicus* and *O. tenuirostris* at Moulmein, but the female only of the latter, which is very similar to the female of *O. indicus,* excepting in the head and the form of the bill. The female of *O. tenuirostris* is still a desideratum.

The following notes are extracted from Mr. Blyth's more recent letters:—

"Two distinct races of Cuckoos have been confounded under the name *Cuculus striatus,* Drapiez, but were distinguished long ago in the 'Madras Journal' by Lord Arthur Hay,—a larger and a smaller species. The former is *C. striatus,* Drapiez, from Java; and we have it, identically the same, from Malacca and from Mussoree. It is *C. affinis,* A. Hay. The latter is *C. micropterus,* Gould. This I have never seen from the Malayan region, but it is common in Burmah during the rains. I obtained there also, in the cold season (at Moulmein), the young of *Cuculus canorus*; and *C. himalayanus* in Upper Martaban.

"Gould gives *Strix flammea* in his list of birds from near Bankok (P.Z.S. 1859, p. 151). He must mean *S. javanica,* which is as common in Burmah as it is in India. Yarrell and others extend the range of *S. flammea* to South Africa; but a Cape specimen we have is certainly distinct, and is *Strix affinis*, nobis (*Strix flammea* apud nos, J. A. S. xxix. 100). It is rather larger than *Strix flammea*, with the general colouring much deeper, the back being of a more prevalent and darker ashy, the lower parts more strongly fulvous, and especially the primaries and tail much more broadly and distinctly banded, the dark markings being greatly more developed than even in the true *S. flammea* of Europe and N. Africa. Closed wing $11\frac{3}{4}$ in.; tail $5\frac{1}{8}$; shank (anteriorly) 2 in. A third African species is *Strix pöensis*, Fraser (P.Z.S. 1842, p. 189). The *Strix capensis*, A. Smith, is a *Scelostrix*, Kaup (v. *Glaux*, nobis, preoccupied in botany).

"Jerdon and myself have just been critically examining a number of Shrikes of the *superciliosus* type. There are four recognizable races, viz. *L. superciliosus* (verus), from the Malayan peninsula; *L. phœnicurus*, Pallas, of India, &c.; *L. lucionensis*, Scop., of the Philippines, China, Ceylon, and the Andaman Islands; and *L. arenarius*, nobis, from the desert region of N.W. India. Of these the third has rather a deeper bill than the others: the second I observed at Akyab during the cold season as abundantly as in Lower Bengal; but to the south (as about Moulmein especially) it is replaced by *L. hypoleucos*, nobis, which Gould gives also from Siam, having exactly the same harsh chattering note and habits. Once only I observed *L. hypoleucos* during my month's stay in the *Yunzalia* forests of Upper Martaban. These are the only two Shrikes that I observed in Burmah. A very common bird on the Moulmein hills is the beautiful *Crypsirhina varians*; and *Dendrocitta rufa* is also abundant there. But the most characteristic bird of those hills is *Garrulax belangeri*.

"While writing the above, I have been interested in listening to the song-notes issuing from a cage containing three pairs of the Malayan *Loriculus pumilus*. These are the nearest approach to a proper song that I know of among the *Psittacidæ*—far more so even than the pleasing twittering and chirruping of the *Melopsittacus undulatus* of Australia. As a rule among the Parrots, the larger the species the harsher and more discordant are the natural notes, from the huge Maccaws of South America and greater Cockatoos of the grand Australian region, down to the diminutive species of *Agapornis, Psittacula, Loriculus, Melopsittacus*, &c. My Andaman *Kittacincla albiventris* is also now pouring forth his quaint and deep-toned (though rather monotonous) whistling, as unlike the richly varied song of *K. macrourus* as can well be imagined."

"In a recent article in the 'Atlantic Monthly Magazine,' entitled 'Then and Now in the Old Dominion,' there are some interesting notices of the early settlements in Virginia; and the author remarks, incidentally, 'On one occasion the writer, walking through one of these fields, startled an English Lark, which rose singing and soaring skyward. It sang a theme of the olden time. Governor Spottiswood brought with him, when he came, a number of these Larks, and made strenuous efforts to domesticate them in the neighbourhood of Fredericksburg, Virginia. He did not succeed. Now and then we have heard of one being seen companionless. It is a sad symbol of the nobler being who tried to domesticate himself in Virginia—the fine old English gentleman. He is now seen but little oftener than the silver grass and the Lark which he brought with him.' But the Larks could not all of them have been companionless, if their posterity continues to exist to the present time. The late M. Audubon told me one day, in the course of conversation, that he had turned out many British Skylarks in the (then) United States, but that he had not heard of their multiplying. I am aware that the Skylark is one of those European birds that have been obtained in the Bermudas; but there it was probably a straggler from the opposite side of the Atlantic."

"Lieut. Beavan (of the late 63rd B.N.I.) has just returned here from Darjeeling, where (though chiefly on Tonglo Mountain, 10,000 feet, on the Nipâl frontier of Sikhim, and some thirty miles from Darjeeling) he has collected many good things in a very short time. Of novelties, a fine new true Bullfinch (*Pyrrhula erythaca*, nobis), being the fourth which the Himalaya has yielded. Size of *P. nipalensis*, with equally furcate tail; pectoral region bright red; all the upper parts, to white rump-band, pure ashy, like the back of male *P. vulgaris*,—a black ring, set off with white, encircling the belly, as in *P. erythrocephala;* throat and fore neck grey, whitish towards the chin; the abdominal region paler grey, and the lower tail-coverts pure white. Tail as in *P. nipalensis.* A broad brownish-grey band (½ inch broad) tipping the greater wing-coverts. A new *Propasser* I call *P. frontalis.* It is most like *P. rhodopepla,* but has a smaller bill and longer tail. Feathers of forehead, supercilia, and throat elongated and narrow, and glistening rosy, with the centres of a vinaceous white; the broad frontal band almost whitish. The female also is very different from the female of the other species. There are other good things in his collections."

Mr. Gätke writing from Heligoland (August 12th) says:—"The harvest of this spring does not furnish so interesting a list as I formerly communicated to you; nevertheless not many collectors of our latitude might be able to match even that. I obtained here, April 29th, a very fine old male of *Emberiza cirlus;* May 7th, quite as fine a specimen of *Totanus stagnatilis;* May 16th, a *Strix scops,*—these three species being new to Heligoland. Further, May 16th, also a very fine old male *Emb. cæsia;* and on the 28th of the same month, a fine *Emb. melanocephala,* old male."

"A fine adult male of the Dotterel (*Charadrius morinellus*) was killed at Tringhoe, in a corn-field, on the 14th inst., by one of Earl Brownlow's keepers. It is now, through the kindness of a friend, in my possession. I regret to say that it got terribly fly-blown before it came into my hands, and I fear it will be scarcely fit for stuffing. I am not aware that the occurrence of this bird has been previously recorded in Buckinghamshire. There is, however, some bleak down-country in the vicinity of Tringhoe not at all uncongenial to its habits.

"H. Harpur Crewe."

"The Rectory, Drayton Beauchamp, Tring, Aug. 23, 1862."

"Since my last letter, announcing the occurrence of the Dotterel (*Charadrius morinellus*) at Tringhoe, Bucks, I have gleaned some additional interesting particulars. On August 14th the keeper was out with his gun in a fallow-field, when he heard a low whistle, which for some weeks previous he had heard near his cottage in the evening. Presently two birds got up and came (to use his own words) straight towards him, like lightning. He fired, and both birds fell. He picked up one, an adult male, which came into my possession. The female dropped in a hollow, and he could not find it. It was afterwards picked up by some children, in whose hands the keeper saw it; but it had been so pulled about that it was fit for nothing, and it was finally plucked, cooked, and eaten by their mother. It may be interesting to some of your readers to hear that two specimens of the Cirl Bunting (*Emberiza cirlus*) were caught in a net by a friend of mine, last winter, at Pitstone, Bucks, the adjoining parish to Tringhoe: one of them unfortunately got thrown away, as my friend did not know what it was; but the other is in my possession. I have little doubt that this bird breeds in the neighbourhood, as in May 1861 I saw a fine adult male in the parish of Albury, which is adjacent to both Pitstone and Tringhoe. "H. HARPUR CREWE."

"The Rectory, Drayton Beauchamp, Tring, Sept. 9, 1862."

With great regret we have to record a fresh addition to the already long list of martyrs to the cause of science—that of a naturalist whose explorations have been several times noticed in these pages. Sir R. Schomburgk sends the following notice to the 'Athenæum,' April 31st:—"Information has just been received at Bangkok of the death of M. Mouhot de Montbeliard, a French traveller and naturalist, who fell a victim to the jungle fever in November last, at the confines of Tonquin. M. Mouhot arrived in Bangkok in 1858, encouraged in his travels by some lovers of natural history in England, and accounts of the new discoveries which he has made have been frequently read before the Zoological Society in London. He was a fair draughtsman; and as his collections have been taken care of by the Siamese authorities where he died, and are now daily expected in Bangkok, under the charge of his servants, it is to be hoped that his manuscripts and drawings are likewise safe. In his personal manners M. Mouhot was most amiable and unassuming. In him, the science of natural history has lost a worthy disciple."

To this we may add that, as we are informed by Mr. S. Stevens, his agent in London, M. Henri Mouhot died at Muang Luang Prabong, the capital city of Eastern Lao, on the 18th of November last year. Notices of some of M. Mouhot's extensive collections in mammalogy and herpetology will be found in the 'Proceedings of the Zoological Society' for 1860 and 1861, by Dr. J. E. Gray and Dr. Günther.

Mr. Gould is engaged in preparing for publication the two first numbers of a new and most remarkable addition to his magnificent series of ornithological works. On this occasion, instead of going to America or Australia to select objects for his pencil, he has chosen the more familiar subjects of the "Birds of Great Britain." It may be added that Mr. Gould has devoted more than usual care and attention to the production of this work. The accurate and characteristic portraits of our feathered favourites which have thus resulted will, we are sure, render this the most popular and the most successful of all Mr. Gould's scientific undertakings.

Major R. C. Tytler, whose name is familiar to many of our readers as that of an energetic worker in Indian ornithology, has lately been appointed to the chief command at Port Blair, the capital of the new settlement in the Andaman Islands. Major Tytler, as we learn from Mr. Blyth, has already procured a fine new Tree-crow (*Dendrocitta*), of which he was forwarding specimens, with other novelties, to the Museum of the Asiatic Society of Bengal at Calcutta.

INDEX.

Abrornis pulcher, 386.
Acanthisitta chloris, 219.
—— citrina, 219.
—— longipes, 219.
—— punctata, 220.
—— tenuirostris, 219.
Acanthiza igata, 221.
—— tenuirostris, 219.
—— trochiloides, 55, 386.
Acanthopneuste, 68.
Acanthylis caudacuta, 317.
Accentor alpinus, 71.
—— montanellus, 383.
Accipiter approximans, 215.
—— nisus, 278, 314.
—— pectoralis, 194.
—— tachiro, 155.
Acridotheres cristatellus, 260.
—— tristis, 92.
Acrocephalus insularis, 384.
—— stentorius, 384.
Actitis rufescens, 62, 71.
Actiturus bartramius, 9, 277.
Actodromas bairdii, 85.
—— bonapartii, 85, 277.
—— maculata, 85, 277.
—— minutilla, 85, 308.
—— wilsoni, 277.
Aëdon familiaris, 66.
—— galactodes, 66.
Ægialites ——?, 289.
—— cantianus, 255, 330.
—— leschenaultii, 255.
—— philippina, 255.
—— vociferus, 8, 275, 276.
Ægiothus canescens, 187.
—— exilipes, 187.
—— fuscescens, 85, 86, 187.
—— holbölli, 187.
—— linaria, 187.
—— rostratus, 187.
—— rufescens, 187.
Ægithalus minutus, 147.
Agelaius phœniceus, 7, 128.
Alauda ——?, 224.
Alauda alpestris, 88, 189.
—— arborea, 275, 279.
—— arvensis, 89, 275, 288.
—— brachydactyla, 71.
—— japonica, 327.
—— littorea, 224.
—— novæ seelandiæ, 224.
Alca impennis, 77, 301, 381.
Alcedo bengalensis, 325.
—— cyanea, 217.
—— ispida, 278.
—— sacra, 217.
—— vagans, 217.
Alectrœnas nitidissima, 196.
Ampelis garrulus, 295, 308.
Amydrus tristrami, 278.
Anarhynchus frontalis, 234
Anas acuta, 279.
—— atra, 242.
—— atricilla, 242.
—— barrovii, 297.
—— boschas, 9, 84, 180, 254, 332.
—— cheneros, 241.
—— chlorotis, 241.
—— clypeata, 254.
—— cygnus, 77.
—— falcaria, 254.
—— fusca, 241, 332.
—— histrionica, 297.
—— leucophrys, 241.
—— malacorhynchus, 101, 241.
—— mediterranea, 241.
—— nigra, 332.
—— novæ-zealandiæ, 242.
—— perspicillata, 72.
—— querquedula, 180.
—— rhynchotis, 241.
—— stelleri, 72.
—— superciliosa, 241, 285.
—— variegata, 241.
Andropadus importunus, 29.
Anoüs ——?, 191.
—— cinereus, 192, 250.
—— leucocapillus, 250.
—— melanogenys, 191.
Anoüs niger, 249.
—— stolidus, 249.
Anser ——?, 332.
—— albatus, 84.
—— bernicla, 332.
—— ferus, 254, 288.
—— hyperboreus, 84, 254.
—— minutus, 92.
—— rossii, 84.
—— segetum, 180, 253.
—— variegata, 241.
Anthomyza cæruleocephala, 218.
Anthornis melanocephala, 218.
—— melanura, 105, 218, 285.
Anthus ——?, 147, 224.
—— agilis, 263.
—— aquaticus, 347.
—— arboreus, 384.
—— aucklandicus, 224.
—— berthelotii, 343, 345, 348.
—— campestris, 62, 343, 345, 347.
—— cervinus, 71.
—— grayi, 224.
—— icterinus, 147.
—— limonellus, 147.
—— ludovicianus, 4, 71, 85.
—— novæ zealandiæ, 224, 285.
—— pratensis, 343, 348.
—— richardi, 62, 71.
—— trivialis, 343.
Antrostomus carolinensis, 96, 128.
Apalis thoracica, 146.
Aplonis australis, 223.
—— obscurus, 227.
—— zelandicus, 227.
Aptenodyta papua, 243.
Aptenodytes flavilarvata, 243.
—— minor, 243.
—— papua, 243.
—— pennantii, 242.
Apteryx australis, 104, 233.

Apteryx major, 233.
—— mantellii, 233, 234.
—— maxima, 233.
—— owenii, 233.
Aquila adalberti, 82.
—— audax, 207.
—— bellicosa, 386.
—— bifasciata, 83, 386.
—— bonellii, 83, 386.
—— chrysaëtos, 83, 179.
—— clanga, 83.
—— desmursi, 83.
—— fucosa, 82.
—— fulva, 180.
—— fulvescens, 386.
—— gurneyi, 83.
—— haliaëtus, 180.
—— hastata, 386.
—— imperialis, 83, 386.
—— malayensis, 82, 83.
—— morphnoides, 386.
—— nævia, 83.
—— nævioïdes, 82, 83, 386.
—— pennata, 83, 387.
—— vulturina, 82.
Aramus giganteus, 129.
Arboricola bambusæ, 259.
Ardea alba, 235.
—— (Botaurus) australis, 236.
—— brevipes, 383.
—— cærulea, 236.
—— cinerea, 170, 180, 236.
—— egretta, 170.
—— exilis, 96.
—— flavirostris, 235.
—— goisagi, 331.
—— herodias, 129, 170.
—— jugularis, 236.
—— latirostrum, 236.
—— ludoviciana, 201.
—— matook, 235.
—— poicilopterus, 236.
—— schistacea, 383.
Ardetta cinnamomea, 258.
—— flavicollis, 258.
—— sinensis, 258.
Argus giganteus, 91.
Artamus fuscus, 306.
Astur approximans, 215.
—— fasciatus, 215.
—— magnirostris, 289.
—— melanoleucus, 155.
—— nisus, 314.
—— radiatus, 215.
Asturina brachyura, 82.
Atelornis pittoides, 271.
Athene (Sceloglaux) albifacies, 216.
Athene novæ seelandiæ, 104, 216, 285.
—— strenna, 286.
—— whitneyi, 187.
—— woodfordi, 37.
Attagen ariel, 191.
Avocetta novæ zealandiæ, 237.
Aythya vallisneria, 10, 308.

Balæniceps rex, 79.
Balearica pavonina, 170.
Basanistes melanoleucus, 148.
Batrachostomus affinis, 304.
—— javanensis, 304.
—— moniliger, 304.
—— stellatus, 304.
Bernicla canadensis, 9.
Bessonornis caffra, 148.
—— vociferans, 152.
Bombycilla phœnicoptera, 326.
Bonasa europæa, 288.
—— umbelloides, 286.
Bonasia sylvestris, 324, 329.
—— umbellus, 329.
Botaurus melanotis, 236.
—— melanotus, 101.
—— poicilopterus, 236.
—— stellaris, 165.
Brachypternus badius, 257
Bradyornis silens, 148.
Bradypterus sylvaticus, 146.
Bruchigavia jamesoni, 248.
Bubo ascalaphus, 278.
—— lacteus, 26, 284.
Bucephala albeola, 10, 308.
—— americana, 10.
Buceros coronatus, 157.
—— monoceros, 157.
Bucorax abyssinicus, 37, 338.
Budytes citreola, 70.
—— flava, 260.
—— rayi, 260.
Buphus comatus, 157.
—— coromandus, 258.
Butalis adusta, 148.
—— hypogrammica, 348, 350.
Buteo bairdii, 184.
—— borealis, 184.
—— brachypterus, 266, 363.
—— calurus, 184.
—— canescens, 362.
Buteo cirtensis, 362.
—— cooperi, 184.
—— delalandi, 361, 363.
—— desertorum, 362.
—— ferox, 362.
—— fuliginosus, 185.
—— harlani, 184.
—— insignatus, 184, 286.
—— japonicus, 314.
—— melanops, 286.
—— minutus, 82.
—— montanus, 184.
—— oxypterus, 184.
—— pœcilonotus, 286.
—— pterocles, 286.
—— rufinus, 278, 362.
—— rufiventer, 362.
—— swainsonii, 184.
—— tachardus, 361.
Buteogallus nigricollis, 286.
Butorides virescens, 129, 289.

Caccabis rubra, 288.
—— saxatilis, 288.
Calamoherpe cantillans, 318.
—— certhiola, 66.
—— orientalis, 317.
—— rufescens, 145.
Calidris arenaria, 277.
Callæas cinerea, 105, 226.
—— wilsoni, 227.
Calliope pectoralis, 303.
Callispiza frantzii, 83.
Calliste icterocephala, 83.
Calyptorhynchus banksii, 285.
Campephaga ferruginea, 225.
—— leucopygia, 226.
—— longicaudata, 226.
Campephilus principalis, 128.
Cancroma, 79.
Capito erythrocephalus, 1.
—— maculicoronatus, 1.
—— peruvianus, 1.
Caprimulgus ——?, 278, 336.
—— arenarius, 386.
—— atrovarius, 143.
—— europæus, 40, 270, 278.
—— madagascariensis, 270.
—— mahrattensis, 304, 386.
—— ruficollis, 39.

Caprimulgus rufigena, 336.
—— lentiginosus, 143.
—— smithii, 143.
Carbo auritus, 252.
—— cormoranus, 332.
—— flavigula, 252.
—— floridanus, 201.
—— sulcirostris, 252.
Cardellina rubra, 96.
Cardinalis virginianus, 128.
Carpodacus purpureus, 6.
Carpophaga norfolciensis, 232.
—— novæ zelandiæ, 105, 231, 285.
—— princeps, 232.
—— spadicea, 232.
Casarca castanea, 241.
—— variegata, 101, 240.
Casuarius galeatus, 78.
—— uni-appendiculatus, 78.
Catarracta antarctica, 248.
Catarrhactes antipodes, 243.
—— minor, 243.
Cathartes atratus, 128.
—— aura, 81, 128.
—— urubitinga, 81.
Ceblepyris cana, 273.
Centropus ——?, 230.
Centrourus australis, 230.
Centrurus productus, 230.
Centurus carolinus, 128.
Ceropia crassirostris, 225.
Certhia concinnata, 217.
—— heteroclites, 220.
—— melanura, 218.
—— mexicana, 195.
—— olivacea, 218.
—— sannio, 218.
Certhiola flaveola, 288.
Certhiparus albicillus, 220.
—— cinerea, 220.
—— maculicaudus, 106, 221.
—— novæ seelandiæ, 221.
—— senilis, 220, 285.
Ceryle alcyon, 3, 128.
—— maxima, 333.
—— rudis, 360.
Chalcites auratus, 337.
Chamæpelia passerina, 129.
—— trochila, 289.
Charadrius ——?, 192.
—— atricinctus, 235.
—— bicinctus, 234.
—— dudoroa, 235.
—— frontalis, 234.
—— glareola, 234.
Charadrius longipes, 71.
—— marmoratus, 71.
—— mongolicus, 330.
—— morinellus, 390, 391.
—— novæ seelandiæ, 235.
—— obscurus, 234.
—— orientalis, 71.
—— pluvialis, 307.
—— pyrrhothorax, 71.
—— torquatula, 235.
—— virginianus, 71, 234.
—— virginicus, 8, 254, 277, 307.
—— xanthocheilus, 192, 234.
Chatarrhœa earlei, 19.
—— gularis, 19.
Chloroceryle alcyon, 289.
—— americana, 289.
Chordeiles henryi, 3.
—— popetue, 128.
Chroicocephalus franklinii, 10.
—— philadelphia, 10, 129.
—— schimperi, 248.
Chrysococcyx lucidus, 231, 285.
Chrysocoma minor, 243.
—— pachyrhynchus, 243.
Chrysomitris pinus, 6.
—— spinus, 327.
Chrysomma altirostre, 22.
—— sinense, 22.
Ciconia alba, 180, 298.
—— nigra, 170.
Cinclus aquaticus, 180.
—— pallasii, 66, 320.
Circaëtus beaudouini, 212, 214.
—— brachydactylus, 209, 212, 214.
—— cinerascens, 210, 211.
—— fasciolatus, 35, 211, 212, 214.
—— gallicus, 208, 214.
—— melanotis, 210.
—— thoracicus, 209, 211, 212, 214.
—— zonurus, 209, 211, 214.
Circus ——?, 268.
—— assimilis, 215.
—— cineraceus, 92.
—— cyaneus, 92.
—— gouldii, 215.
—— maculosus, 286.
—— pallidus, 92, 382.
Cisticola volitans, 304.
Cistothorus palustris, 5.
Climacteris scandens, 218.
Clupeilarus antipodum, 248.
Coccothraustes vulgaris, 328.
Cœnocorypha aucklandica, 237.
Colaptes auratus, 3, 128.
—— mexicanus, 3, 286.
Colius castanonotus, 333.
—— striatus, 157.
Collocalia fuciphaga, 284.
Collurio smithii, 337.
Collyrio borealis, 5.
—— excubitoroides, 5.
—— ludovicianus, 128.
Columba æenea, 233.
—— argetræa, 232.
—— armillaris, 232.
—— brunnea, 233.
—— chalcoptera, 232.
—— gelastes, 181, 329.
—— jamiesoni, 232.
—— leucogaster, 232.
—— leucomela, 232.
—— leucophæa, 232.
—— leucozonura, 92.
—— melanoleuca, 232.
—— norfolciensis, 232.
—— novæ seelandiæ, 231.
—— œnas, 288.
—— palumbus, 180, 288.
—— picata, 232.
—— princeps, 232.
—— rupestris, 92.
—— sieboldii, 329.
—— spadicea, 232.
—— turricola, 279.
—— zelandica, 231.
Colymbus arcticus, 331.
—— septentrionalis, 282.
Conurus carolinensis, 128.
—— lineolatus, 96.
Cookilaria leucoptera, 246.
Corvus americanus, 7.
—— cafer, 31, 152.
—— capensis, 152.
—— carnivorus, 7.
—— cornix, 358.
—— corone, 326.
—— dauricus, 383.
—— frugilegus, 279.
—— japonensis, 260, 325.
—— leucophæus, 297.
—— macrorhynchus, 325.
—— madagascariensis, 274.
—— orru, 348.
—— pectoralis, 260.
—— sinensis, 260.

Corythaix paulina, 338.
—— porphyreolophus, 32.
Corythornis vintsioides, 271.
Cosmetornis vexillaria, 143.
Cossypha caffra, 148.
—— natalensis, 152.
Coturnix dactylisonans, 288.
—— japonica, 329.
—— novæ zealandiæ, 102, 233.
Cotyle fuligula, 145.
—— riparia, 4.
Crateropus chalybeus, 278.
Creadion carunculatus,227
—— pharoides, 227.
Crex plumbea, 239.
Criniger flavicaudus, 351.
—— simplex, 350.
Crypsirhina cucullata, 20.
—— varians, 20, 194, 388.
Cryptorhina callæus, 226.
Cuculus affinis, 387.
—— canorus, 83, 92, 325, 357, 384, 387.
—— fasciatus, 231.
—— glandarius, 357, 358.
—— himalayanus, 387.
—— lucidus, 231.
—— micropterus, 387.
—— nitens, 231.
—— striatus, 92, 263, 387.
—— taitensis, 231.
—— tenuirostris, 307.
Culicipeta ruficapilla, 152.
Curruca igata, 221.
Cursorius senegalensis,335.
Cyanocitta floridana, 129, 134, 201.
Cyanolanius bicolor, 274.
Cyanopica cooki, 295.
—— cyanea, 295.
Cyanoramphus auriceps, 229.
—— erythrotis, 228.
—— malherbii, 229.
—— novæ zealandiæ, 228.
—— unicolor, 229.
Cyanospiza cyanea, 128.
Cyanura cristata, 8, 129.
—— stelleri, 8.
Cygnus buccinator, 9, 308.
—— ferus, 183.
—— minor, 183, 254.
—— musicus, 180, 254, 332.
Cypselus ——?, 270.
—— apus, 194.
Cypselus velox, 144.
—— vittatus, 194.

Dacelo vagans, 217.
Dafila acuta, 9, 332.
Daption capensis, 97, 98, 99, 246.
Delattria henrici, 96.
Demiegretta ludoviciana, 129.
—— pealii, 129.
Dendrobates fulviscapus, 33.
Dendrocitta rufa, 388.
Dendrocygna viduata, 158.
Dendrœca petechia, 288.
Dendroica æstiva, 4.
—— striata, 4.
Dendromus chrysurus, 38, 157.
—— smithii, 37, 157.
Dicrurus ——?, 336.
—— cineraceus, 257.
—— forficatus, 274.
—— musicus, 156.
Dinornis ——?, 240.
Diomedea chlororhyncha, 97, 98.
—— exulans,97,98,99,247.
—— fuliginosa,97,99,247.
—— melanophrys, 97, 99.
Dominicanus antipodum, 248.
Dromæus ater, 93.
—— irroratus, 284.
Dromiceius novæ zealandiæ, 233.
Drymœca madagascariensis, 272.
Drymoica subflava, 28.
Dryocopus martius, 323, 325.
Dryoscopus cubla, 31.
Dysporus fiber, 250.

Ectopistes migratoria, 8.
Egretta ——?, 289.
—— candidissima, 201.
Elanus melanopterus, 174.
Emberiza ——?, 328.
—— aureola, 71.
—— cæsia, 71, 390.
—— cioides, 328.
—— ciopsis, 328.
—— cirlus, 390.
—— fucata, 328.
—— hortulana, 71, 288.
—— melanocephala, 71, 390.
—— melanops, 92.
Emberiza nivalis, 89.
—— personata, 92, 258.
—— pusilla, 62, 63, 71.
—— rustica, 71, 328.
—— spodocephala, 92.
—— sulphurata, 328.
Empidonax pusillus, 4.
Enicurus speciosus, 261, 264.
Ephialtes capensis, 30.
—— leucotis, 26.
Eremophila cornuta, 5.
Ereunetes pusillus, 308.
Erismatura dominica, 289.
—— rubida, 289.
Erythacus rubecula, 278.
Erythropygia galtoni, 146.
Erythrosterna parva, 305.
Erythrura modesta, 351.
Estrelda astrild,31,92,156.
—— dufresnii, 32.
Eudromias asiaticus, 71.
Eudynamys cuneicauda, 231.
—— taïtensis, 231, 285.
Eudyptes antipodes, 243.
—— minor, 243.
—— pachyrhynchus, 243.
Eulampis holosericeus,289.
—— jugularis, 289.
Euphonia flavifrons, 288.
Euplectes capensis, 336.
—— flammiceps, 338.
Euplocomus vieilloti, 91.
Eupodotis australis, 114.
—— edwardsi, 113.
—— melanogaster, 153.
Eurystomus madagascariensis, 270.

Falco æsalon, 383.
—— anatum, 286, 308.
—— arcticus, 50, 51, 52.
—— aurantius, 25.
—— aurioculus, 215.
—— australis, 215.
—— biarmicus, 154.
—— brunneus, 101, 215.
—— candicans, 44, 51, 52, 308.
—— cenchris, 65.
—— cherrug, 387.
—— circumcinctus, 23, 25.
—— communis, 314.
—— concolor, 380.
—— eleonoræ, 380.
—— ferox, 215.
—— fuscus, 44.
—— gracilis, 267.
—— gyrfalco, 44, 48, 65.

Falco harpe, 101, 215.
—— islandicus, 50, 51.
—— islandus, 44.
—— labradora, 51.
—— lanarius, 387.
—— milvus, 180.
—— nisus, 180.
—— novæ seelandiæ, 215.
—— palumbarius, 180.
—— peregrinus, 314.
—— punctatus, 267.
—— punctipennis, 24, 25.
—— radama, 266.
—— rusticolus, 44.
—— sacer, 45, 51, 92, 387.
—— subniger, 51.
—— tinnunculus, 383.
—— vespertinus, 65.
Ficedula coronata, 67, 317.
—— icterina, 68.
Florida cærulea, 129.
—— purpurea, 289.
Foudia erythrocephala, 275.
—— madagascariensis, 275.
Francolinus madagascariensis, 92.
—— perlatus, 91, 259, 387.
—— phayrii, 387.
—— sinensis, 92.
—— vulgaris, 352.
Fregetta melanogastra, 245.
Fringilla albicilla, 220.
—— chloris, 384.
—— citrinella, 71.
—— incerta, 385.
—— kawarahiba minor, 327.
Fulica alba, 240.
—— americana, 9, 129.
—— atra, 180.
—— — japonica, 331.
—— cristata, 153.
Fuligula clangula, 332.
—— cristata, 254.
—— marila, 254.
—— novæ zealandiæ, 242, 285.
—— rufina, 296.
Fulix affinis, 308.
—— marila, 129.

Gallinago aucklandica, 237.
—— megala, 255.
—— punctata, 236.
—— scolopacinus, 182.
Gallinago solitaria, 331.
—— stenura, 259, 331.
—— uniclava, 259.
—— wilsonii, 9, 195, 308.
Gallinula alba, 240.
—— chloropus, 288, 307.
—— erythrothorax, 331.
—— galeata, 129.
—— gallinago, 331.
Gallirallus brachypterus, 238.
—— fuscus, 238.
Gallus domesticus, 76, 180.
Gambetta flavipes, 9, 277.
—— melanoleuca, 9.
Garrulax belangeri, 388.
—— perspicillatus, 306.
Garrulus brandtii, 323, 326.
—— cervicalis, 295.
—— glandarius japonicus, 326.
—— krynickii, 295.
—— ornatus, 261.
—— —— (seu bispecularis), 263.
Gavia andersoni, 248.
Gecinus canus, 325.
Gelastes andersoni, 248.
Geocichla poliocephala, 225.
Geopelia striata, 92.
Gerygone ? albofrontata, 221.
—— flaviventris, 221.
—— igata, 221.
—— modesta, 221.
Glaucidium californicum, 187.
—— gnoma, 187.
Glaucopis cinerea, 226.
Graculus auritus, 252.
—— brevirostris, 252.
—— carboïdes, 251.
—— chalconotus, 252.
—— cirrhatus, 251.
—— flavirostris, 251.
—— floridanus, 129.
—— glaucus, 252.
—— javanicus, 92.
—— melanoleucus, 251.
—— punctatus, 252.
—— pygmæus, 92.
—— stictocephalus, 252.
—— varius, 102, 251.
Gracupica nigricollis, 260.
Grus americana, 133, 170.
—— antigone, 170.
—— canadensis, 8, 129, 133.
Grus cinerea, 183.
—— virgo, 71.
Guiraca ludoviciana, 7.
Gygis candida, 249.
Gypaëtus barbatus, 278.
—— nudipes, 278.
Gypoictinia melanosternon, 283.

Hæmatopus ater, 277.
—— australiasianus, 235.
—— longirostris, 235.
—— moquini, 34.
—— niger, 235.
—— picatus, 106, 235.
—— unicolor, 235.
Haladroma urinatrix, 244.
Halcyon cinnamominus, 217.
—— fuscicapilla, 145.
—— sacra, 216.
—— sanctus, 216, 217.
—— striolata, 337.
—— vagans, 216, 285.
Haliaëtus albicilla, 381.
—— fulviventer, 386.
—— leucocephalus, 128.
—— leucogaster, 36, 386.
—— vocifer, 36.
Haliæus brevirostris, 252.
Halobæna cærulea, 247.
Harpagus, 25.
—— bidentatus, 23.
—— circumcinctus, 23, 24.
—— diodon, 23.
Harporhynchus rufus, 5, 128.
Hartlaubia madagascariensis, 275.
Hedymeles melanocephalus, 286.
Heleodytes albo-brunneus, 10.
—— griseus, 11.
Helminthophaga celata, 4.
—— luciæ, 187.
—— peregrina, 4.
Helotarsus ecaudatus, 35.
Hemiphaga novæ zealandiæ, 232.
—— spadicea, 232.
Herodias egretta, 129.
—— flavirostris, 101, 235.
—— gardeni, 201.
—— garzetta, 258.
—— matook, 236.
—— matuka, 101.
—— melanopus, 92.
—— pealii, 201.
—— rufescens, 201.

Herodias violacea, 201.
—— virescens, 201.
Hesperiphona vespertina, 5
Heteralocha gouldi, 217.
Hiaticula ——?, 192.
—— bicincta, 234.
—— novæ seelandiæ, 235.
Hieracidea brunnea, 215.
—— novæ zelandiæ, 101, 214.
Himantopus albus, 237.
—— leucocephalus, 192.
—— melas, 237.
—— niger, 237.
—— nigricollis, 129.
—— novæ zealandiæ, 237.
—— picatus, 237.
Hirundo ——?, 270.
—— alpestris, 66.
—— bicolor, 4.
—— cahirica, 181, 278.
—— capensis, 144.
—— daürica, 66.
—— dimidiata, 144.
—— holomelas, 143.
—— japonica, 316.
—— javanica, 315, 316.
—— leucosoma, 144.
—— lunifrons, 96.
—— monteiri, 336, 340.
—— paludicola, 145.
—— palustris, 145.
—— rufula, 62, 65.
—— rustica, 77, 194, 316.
—— semirufa, 340.
—— senegalensis, 340.
—— thalassina, 286.
—— urbica, 77, 316.
Hydrochelidon albostriata, 249.
—— plumbea, 10.
Hylatomus pileatus, 3, 128.
Hymenolaimus malacorhynchus, 241.
Hyphantornis aurifrons, 342.
—— capensis, 342.
—— xanthops, 335, 342.
Hypoleucus varius, 251.
Hypotænidia dieffenbachii, 238.
—— striata, 239.
Hypothymis cyanomelæna, 306.
Hypotriorchis femoralis, 286.
—— novæ zealandiæ, 215.
Hypsipetes olivacea, 273.
—— ouravang, 273.

Ianthia rufilata, 261, 264.
Ibis alba, 201.
—— nippon, 331.
Ibycter americanus, 286.
—— ater, 286.
Icterus baltimore, 7.
—— bonanæ, 288.
—— novæ zealandiæ, 227.
—— rufusater, 227.
Iduna salicaria, 66.
Ieraglaux (Sceloglaux) albifacies, 216.
—— (Spiloglaux) novæ zealandiæ, 216.
Indicator major, 33.
Irrisor erythrorhynchos, 27, 334.
Ispidina madagascariensis, 271.
Ixos arsinoë, 341.
—— ashanteus, 341.
—— aurigaster, 341.
—— hæmorrhous, 307.
—— inornatus, 341.
—— tricolor, 338, 341.
—— xanthopygius, 341.

Juida melanogastra, 29.
—— morio, 28.
Junco cinereus, 195.
—— hyemalis, 6.

Keropia crassirostris, 225.
Kittaciucla albiventris, 389
—— macrourus, 389.

Læmodon nigrothorax, 32.
Lagopus albus, 8, 284.
—— alpinus, 355.
—— islandorum, 297.
—— mutus, 329.
Lampornis ——?, 289.
Lamprocolius bispecularis, 149.
—— decoratus, 148.
—— melanogaster, 148.
—— phœnicopterus, 148, 149.
—— sycobius, 149.
Lamprotornis obscurus, 227.
—— pyrrhopogon, 327.
—— zealandicus, 227.
Lanius arenarius, 388.
—— bucephalus, 317.
—— crassirostris, 225.
—— hypoleucus, 19, 194, 388.
—— lucionensis, 388.
—— meridionalis, 279.
Lanius personatus, 279.
—— phœnicurus, 66, 388.
—— superciliosus, 388.
Larus ——?, 180.
—— antipodum, 248.
—— argentatus, 10, 64, 85.
—— brunneicephalus, 92, 311.
—— crassirostris, 383.
—— delawarensis, 10.
—— dominicanus, 248.
—— fuscus, 64.
—— gelastes, 279.
—— glaucus, 308.
—— ichthyaëtus, 311.
—— littoralis, 248.
—— marinus, 64.
—— melanurus, 311, 332.
—— minutus, 59, 92.
—— novæ hollandiæ, 248.
—— ridibundus, 92.
—— roseus, 62, 63, 71.
—— sabinii, 63, 71.
—— schimperi, 248.
—— scopulinus, 248.
Leipoa ocellata, 284.
Leptopterus viridis, 273.
Leptoptilus javanicus, 170.
Lestris antarcticus, 98, 99, 247, 248.
—— catarractes, 248.
—— fuscus, 248.
—— richardsoni, 296.
—— scopulinus, 248.
—— thuliaca, 296.
Leucopternis palliata, 82.
—— superciliaris, 82.
Leucosarcia picata, 232.
Leucotreron gironieri, 342.
—— gularis, 343.
Ligurinus sinicus, 327.
Limicola pygmæa, 71.
Limnocorax flavirostris, 35.
Limosa baueri, 236.
—— fedoa, 9.
—— lapponica, var. novæ zealandiæ, 236.
—— novæ zealandiæ, 236.
—— rufa, 331.
Linota canescens, 89.
Lobipes hyperboreus, 308.
Locustella nævia, 385.
Lopholæmus antarcticus, 286.
Loriculus amabilis, 349.
—— pumilus, 388.
—— puniculus, 305.
—— stigmatus, 349.
Loxia curvirostra, 92.
—— himalayana, 92.

Loxia pitiopsittacus, 92.
—— turdus, 225.
Loxigilla noctis, 288.
Luscinia sperata, 145, 146.
—— sinuata, 145.
Lusciola akahige, 318.
—— aurorea, 318.
—— cyanura, 307, 318.

Machæropterus deliciosus, 176.
—— pyrocephalus, 176.
—— regulus, 176.
—— strigilatus, 176.
—— striolatus, 176.
Macrodipteryx africanus, 291.
Macronyx ameliæ, 28.
—— croceus, 334.
Macrorhamphus griseus, 277.
Majaqueus æquinoctialis, 245.
Malaconotus atrococcineus, 148.
Malacorhynchus forsterorum, 242.
—— membranaceus, 242.
Mareca americana, 308.
—— penelope, 332.
Margaroperdix striata, 267.
Margarops ——?, 288.
Megalopterus stolidus, 249
Megalurus punctatus, 220.
Melanerpes torquatus, 3.
Melanetta velvetina, 308.
Meleagris gallopavo, 129.
Meliphaga cincta, 218.
—— concinnata, 217.
—— novæ zealandiæ, 217.
Melittophagus erythropterus, 27.
Melopsittacus undulatus, 388.
Melospiza lincolnii, 7.
—— melodia, 7.
Menura alberti, 286.
Mergulus alle, 308.
Mergus americanus, 10.
—— australis, 242.
—— merganser, 332.
—— serrator, 85, 332.
Merops apiaster, 65, 278, 359.
—— concinnata, 217.
—— erythropterus, 334.
—— novæ seelandiæ, 217.
—— persicus, 359.
—— savignii, 334.
Merops superciliosus, 272.
—— viridis, 278, 359.
Merula nestor, 224.
—— poliocephala, 225.
—— rosea, 66.
—— vinitincta, 224.
Micrastur brachypterus, 286.
Microcarbo stictocephalus, 252.
Milvago albogularis, 81.
—— carunculatus, 81.
—— crassirostris, 81.
—— montanus, 81.
Milvus affinis, 92.
—— govinda, 92.
—— melanotis, 92, 314.
—— parasiticus, 268.
Mimeta forsteni, 95.
Mimus carolinensis, 5, 128.
—— polyglottus, 128.
Mirafra hova, 275.
Miro albifrons, 223.
—— australis, 223.
—— dieffenbachii, 223.
—— forsterorum, 222.
—— longipes, 223.
—— macrocephala, 222.
—— toitoi, 223, 285.
Mohoua? albicilla, 220.
—— hua, 220.
—— ochrocephala, 220.
Molothrus pecoris, 7.
Monedula dauricus, 383.
Mormon arcticus?, 86.
Motacilla alba, 296.
—— boarula, 260, 318.
—— capensis, 156, 334.
—— certhiola, 62, 63.
—— citreola, 63.
—— citrina, 219.
—— citrinella, 219.
—— dukhunensis, 260.
—— flaviventris, 273.
—— longicauda, 151.
—— longipes, 219.
—— lugens, 319.
—— lugubris, 260, 279.
—— luzoniensis, 259.
—— ocularis, 260.
—— proregulus, 54, 386.
—— salicaria, 63.
—— sulphurea, 279.
—— superciliosa, 55, 68.
—— yarrellii, 70, 296.
Muscicapa albifrons, 223.
—— albopectus, 223.
—— chloris, 220.
—— cinereo-alba, 317.
—— cyanomelana, 317.
Muscicapa erythrogastra, 224.
—— flabellifera, 225.
—— hylocharis, 305, 317,
—— longipes, 223.
—— macrocephala, 222.
—— melanura, 222.
—— minuta, 222.
—— narcissina, 317, 318.
—— nitida, 386.
—— ochrocephala, 220.
—— parva, 66.
—— saxicolina, 223.
—— toitoi, 223.
—— ventilabrum, 225.
Muscipeta flabellifera, 225.
—— principalis, 317.
Mycteria australis, 171.
—— senegalensis, 34.
Myiomoira toitoi, 223.
Myiophonus cæruleus, 261, 264.
Myiothera novæ zealandiæ, 223.
Myiozetetes columbianus, 11.
—— granadensis, 11.

Nauclerus furcatus, 128 174.
Nectarinia afra, 155.
—— angladiana, 272.
—— chalcea, 337, 341.
—— cuprea, 341.
—— natalensis, 27.
—— osea, 278.
—— souimanga, 272.
Nectrix nugax, 244.
Nemura cyanura, 318.
Neocorys spraguii, 4.
Neomorpha acutirostris, 217.
—— crassirostris, 217.
—— gouldi, 217.
Nesonetta aucklandica, 242
Nestor esslingii, 230.
—— hypopolius, 229.
—— meridionalis, 103, 104, 229.
—— norfolcensis, 230.
—— notabilis, 230.
—— novæ zealandiæ, 230.
—— productus, 230.
Nettion carolinense, 9.
—— crecca, 332.
Nilaus capensis, 31.
Ninox (Sceloglaux) albifacies, 216.
—— (Spiloglaux) novæ zealandiæ, 216.

Nisus (Urospiza) approximans, 215.
—— madagascariensis, 268.
—— (Urospiza) radiatus, 215.
Noctua venatica, 216.
—— zealandica, 216.
Notornis alba, 240.
—— mantellii, 239.
Nucifraga caryocatactes, 326, 365, 381.
Numenius borealis, 277.
—— longirostris, 129.
—— major, 330, 331.
—— minor, 330.
—— tahitiensis, 330.
—— uropygialis, 191.

Ocydromus australis, 102, 237, 238.
—— brachypterus, 238.
—— dieffenbachii, 239.
—— earli, 238.
—— troglodytis, 238.
Œdemia americana, 308.
Œdicnemus crepitans, 355.
Oncostoma cinereigulare, 12.
Onychoprion panaya, 192.
Oporornis formosus, 308.
Oreophasis derbianus, 195.
Oriolus acrorhynchus, 93.
—— brachyrhynchus, 342.
—— chinensis, 93, 364, 387.
—— coronatus, 93.
—— galbula, 278.
—— indicus, 93, 364, 387.
—— larvatus, 335, 341.
—— macrourus, 93.
—— tenuirostris, 93, 387.
Orites caudatus, 92.
Orpheus amaurotis, 320.
—— lividus, 66.
Orthonyx heteroclitus, 220.
—— icterocephalus, 220.
—— ochrocephala, 220.
Orthotomus phyllorapheus, 258.
Ortygometra affinis, 239.
—— angolensis, 335, 340.
—— tabuensis, 239.
Ortyx virginianus, 129.
Ossifraga gigantea, 245.
Otagon turdus, 225.
Otis nigriceps, 113.
—— tarda, 107, 383.
—— tetrax, 114, 355.
Otocorys alpestris, 303.
Otothrix cornutus, 304.
—— hodgsonii, 304.
Otus semitorques, 316.
—— vulgaris, 26.
Oxylophus glandarius, 294.
Oxystomus caranculatus, 227.

Pachycephala ? australis, 222.
—— longirostris, 226.
—— xanthoprocta, 226.
Pachyptila banksii, 247.
—— vittata, 247.
Palæornis barbatus, 19.
—— torquatus, 19.
Pandion carolinensis, 128.
—— haliaëtus, 179, 298.
Paradoxornis —— ?, 22.
Parisoma layardi, 147.
Parra africana, 38.
Parus ater, 321.
—— barbatus, 71.
—— hudsonicus, 5.
—— kamtschatkensis, 321.
—— leucopterus, 338.
—— macrocephalus, 222.
—— minor, 257.
—— niger, 28, 155.
—— novæ seelandiæ, 221.
—— palustris, 321.
—— rubidus, 321.
—— senilis, 220.
—— septentrionalis, 5.
—— urostigma, 221.
—— zealandicus, 222.
Passer montanus, 258, 260, 327.
—— russatus, 328.
Passerculus savanna, 6.
Pastor pyrrhogenys, 327.
Pedioecetes kennicottii, 187.
—— phasianellus, 8, 187.
Pelagodroma fregetta, 244.
—— marina, 244.
Pelecanoïdes urinatrix, 243.
Pelecanopus poliocercus, 249.
Pelecanus carboides, 252.
—— carunculatus, 251.
—— cirrhatus, 251.
—— crispus, 254.
—— dimidiatus, 251.
—— fiber, 250.
—— flavirostris, 251.
—— fuscus, 129.
—— major, 252.
—— nævius, 252.
—— novæ hollandiæ, 251.
—— pica, 251.
Pelecanus piscator, 250.
—— plotus, 250.
—— punctatus, 252.
—— serrator, 250.
—— sula, 250.
—— varius, 251.
Pelidna americana, 85.
Pelionetta perspicillata, 308
Perdix cinerea, 98, 288.
—— gambra, 355.
—— oculea, 387.
—— ponticerianus, 92.
Pericrocotus albifrons, 20.
—— brevirostris, 255.
—— erythropygia, 21.
Perisoreus canadensis, 8.
Peristera chalcoptera, 233.
Pernis apivorus, 361.
Petrocichla saxatilis, 66.
Petrocincla cyanea, 307.
—— manilensis, 307, 319.
—— pandoo, 307.
Petrodroma fuliginosus, 246.
Petrœca albifrons, 223, 285.
—— australis, 223.
—— dieffenbachii, 223.
—— erythrogastra, 224.
—— longipes, 223.
—— macrocephala, 222.
—— modesta, 224.
—— pulchella, 224.
—— toitoi, 223.
Phaëton æthereus, 383.
—— erubescens, 250.
—— phœnicurus, 192, 250.
—— rubricauda, 250.
Phalacrocorax —— ?, 289.
—— africanus, 154.
—— brevirostris, 252.
—— carboides, 251.
—— dilophus, 252.
—— filamentosus, 92.
—— flavirostris, 251.
—— fucosus, 251.
—— glaucus, 252.
—— hypoleucus, 251.
—— imperialis, 251.
—— melanoleucus, 251.
—— nævius, 252.
—— punctatus, 252.
—— purpureigula, 252.
—— sinensis, 92.
Phalaropus fulicarius, 277.
—— hyperboreus, 277, 331.
Phaps chalcoptera, 232.
—— picata, 232.
Pharomacrus mocinno, 195
Phasianus sœmmeringii, 330.

Phasianus torquatus, 259.
—— versicolor, 330.
Phasmoptynx capensis, 26, 336.
Phedina —— ?, 270.
—— borbonica, 270.
Philedon dumerilii, 218.
—— sannio, 218.
Philemon concinnatus,217.
Philomachus pugnax, 34, 277.
Phœnicurus rubricauda, 250.
Pholidauges leucogaster, 29, 337.
Phrynorhamphus capensis, 30.
Phyllobasileus superciliosus, 66.
Phyllopneuste borealis, 68, 69, 70.
—— coronata, 317.
—— eversmanni, 67.
—— icterina, 70.
—— javanica, 66, 68, 69, 70.
—— magnirostris, 67.
—— nitidus, 55.
—— proregulus, 66, 68.
—— reguloides, 54, 386.
—— rufa, 347.
—— trochilus, 68.
Phylloscopus nitidus, 386.
—— reguloides, 54.
Pica caudata, 294.
—— hudsonica, 8.
Picicorvus columbianus, 7.
Picus borealis, 128.
—— kisuki, 323, 325.
—— leuconotus, 325.
—— major, 325.
—— pubescens, 3.
—— ruber, 286.
—— (Chrysoptilopicus) smithii, 37.
—— syriacus, 279.
—— uralensis, 325.
—— villosus, 3, 128.
Pindalus ruficapillus, 152.
Pinguinaria patachonica, 242.
Pinicola canadensis, 6, 85.
Pipilo arcticus, 7.
—— erythrophthalmus, 128.
Pipra deliciosa, 175, 176.
—— lineata, 176.
—— pyrocephala, 176.
—— regulus, 175, 176.
—— strigilata, 176.
Pipra striolata, 175, 176.
Pitangus albovittatus, 11.
—— lictor, 11.
Pitta celebensis, 95.
—— concinna, 87.
—— (Hydrornis) cyanura, 91.
—— leucoptera, 186.
—— macklotti, 95.
Platalea —— ?, 236.
—— ajaja, 129, 201.
Platycercus aucklandicus, 229.
—— auriceps, 229, 285.
—— cookii, 228.
—— erythrotis, 228.
—— malherbii, 229.
—— novæ zealandiæ, 228, 229.
—— pacificus, 228.
—— pennantii, 227.
—— rayneri, 228.
—— unicolor, 229.
Platysteira pririt, 156.
Plautus impennis, 381.
Plectrophanes lapponicus, 6.
—— nivalis, 327.
—— ornatus, 6.
—— pictus, 6.
Ploceus ocularis, 37.
Plotus anhinga, 129.
—— levaillantii, 154.
Pluvianus ægyptius, 278, 279, 336.
Plyctolophus productus, 230.
Podargus cornutus, 304.
—— crinitus, 304.
—— parvulus, 304.
Podica personata, 91.
Podiceps auritus, 81, 195, 331.
—— cornutus, 10, 195.
—— cristatus, 103.
—— minor, 153.
—— (Poliocephalus) rufipectus, 242.
Pœcilonetta erythrorhyncha, 158.
Pogonocichla ruficapilla, 152.
Pogonornis cincta, 218.
Polyboroides madagascariensis, 268.
—— radiatus, 35, 268.
Poœcetes gramineus, 6.
Porphyrio alba, 240.
—— martinica, 289.
—— melanotus, 240.
Porphyrio melanotus (albino, var.), 240.
Porzana affinis, 239.
—— erythrothorax, 331.
Pratincola ferrea, 258, 386.
—— indica, 386.
—— leucura, 19, 303, 385, 386.
—— rubicola, 318, 386.
—— saturatior, 386.
—— sybilla, 272.
Priocella garnoti, 246.
Prion banksii, 247.
—— forsteri, 247.
—— vittatus, 97, 98, 247.
Prionops talacoma, 337.
Procellaria —— ?, 247.
—— æquinoctialis, 97,245.
—— æquorea, 244.
—— alba, 246.
—— ariel, 247.
—— atlantica, 246.
—— brevirostris, 247.
—— cærulea, 247.
—— capensis, 246.
—— cookii, 246.
—— forsteri, 247.
—— fregata, 245.
—— fuliginosa, 245, 246.
—— gavia, 246.
—— gigantea, 97, 98, 99, 193, 245.
—— glacialis, 98, 99.
—— glacialoïdes, 246.
—— grallaria, 245.
—— grisea, 244, 246.
—— hæsitata, 192.
—— hypoleuca, 244.
—— latirostris, 247.
—— marina, 244.
—— mollis, 97, 98, 99, 246.
—— nereis, 245.
—— oceanica, 245.
—— ossifraga, 245.
—— parkinsoni, 245.
—— phillipii, 246.
—— punctata, 246.
—— similis, 247.
—— tridactyla, 244.
—— urinatrix, 244.
—— vittata, 247.
Procelsterna albivitta, 250.
Progne purpurea, 4.
Promerops cafer, 27.
Propasser frontalis, 390.
—— rhodopepla, 390.
Prosthemadera concinnata, 217.
—— novæ zelandiæ, 105, 217, 285.

Psalidoprocne cypselina, 143.
Psaropholus ardens, 363, 364.
—— trailii, 363.
Pseudolalage melanictera, 78.
Psittacus (Conurus) auriceps, 229.
—— australis, 229.
—— elegans, 227.
—— gloriosus, 227.
—— hypopolius, 229.
—— meridionalis, 229.
—— nestor, 229.
—— (Kakadoe) nestor, 229.
—— novæ zealandiæ, 229.
—— pacificus, 228, 229; var., 229.
—— pennantii, 227.
—— platycercus viridis unicolor, 229.
—— splendidus, 227.
Pterocles arenarius, 288, 355.
—— setarius, 355.
Pteroptochus albicollis, 184.
Ptilonopus prasinorrhous, 95.
—— viridis, 95.
Ptilotis auritus, 218.
—— cincta, 218.
Puffinuria garnotii, 244.
—— urinatrix, 100, 244.
Puffinus ——?, 99.
—— æquinoctialis, 245.
—— assimilis, 244.
—— australis, 244.
—— brevicaudus, 99.
—— chlororhynchus, 244.
—— cinereus, 244.
—— fuliginosus, 244.
—— gama, 244.
—— major, 244.
—— obscurus, 99.
—— sphenurus, 244.
—— tristis, 244.
Pycnonotus ——?, 19.
—— aurigaster, 148.
—— blanfordi, 20.
—— levaillantii, 29.
Pygoscelis antipodes, 243.
—— papua, 243.
—— wagleri, 243.
Pyranga ludoviciana, 286.
—— rubra, 128.
Pyrrhula erythaca, 389.
—— erythrocephala, 390.
Pyrrhula githaginea, 346.
—— nipalensis, 389.
—— orientalis, 328.
—— rosea, 63, 71.
—— sanguinolenta, 328.
—— serinus, 71.
—— vulgaris, 389.
—— —— orientalis, 328.
Pytelia monteiri, 94.

Querquedula discors, 9.
—— falcaria, 332.
—— hottentotta, 154.
Quiscalus major, 128, 137.
—— versicolor, 7, 129, 137.

Rallus assimilis, 239, 285.
—— australis, 237, 239.
—— crepitans, 129.
—— dieffenbachii, 238.
—— fuscus, 238.
—— minor, 239.
—— minutus, 239.
—— pectoralis, 191.
—— punctatus, 239.
—— rufopes, 239.
—— strepitans, 238.
—— tabuensis, 239.
—— tenebrosus, 239.
—— troglodytes, 237.
Recurvirostra ——?, 237.
—— novæ hollandiæ, 237.
—— rubricollis, 237.
Reguloïdes chloronotus, 386.
—— proregulus, 55, 257.
—— pulchra, 386.
—— superciliosa, 386.
—— trochiloides, 386.
—— viridipennis, 386.
Regulus auricapillus, 320.
—— inornatus, 54.
—— japonensis, 320.
—— modestus, 54, 63, 68.
Rhantistes cooki, 246.
Rhinochetus jubatus, 90.
Rhinopomastes cyanomelas, 145.
Rhipidura albiscapa, 225.
—— assimilis, 226.
—— flabellifera, 225, 285.
—— macrocephala, 222.
—— melanura, 225, 226.
—— pelzelni, 226.
—— tristis, 226.
Rhodophila melanoleuca, 386.
Rhyacophilus solitarius, 9.
Ruticilla aurorea, 261, 318.
Ruticilla burnesii, 385.
—— phœnicura, 278.
—— tithys, 296.

Salicaria cantillans, 318.
—— turdoides orientalis, 317.
Saltator martinicensis, 288.
Sarcidiornis regia, 284.
Saxicola aurita, 70.
—— leucura, 257.
—— longipes, 223.
—— œnanthe, 86, 347.
—— rufescens, 70.
—— stapazina, 70.
Sayornis sayus, 4.
Scolecophagus cyanocephalus, 7.
—— ferrugineus, 7.
Scolopax glottis, 236.
—— holmesi, 237.
—— rusticola, 284.
Scops asio, 128.
—— japonicus, 316.
—— novæ zealandiæ, 216.
Scopus, 79.
—— umbretta, 159, 267, 333.
Seiurus noveboracensis, 4.
Selasphorus heloisæ, 96.
Serpentarius reptilivorus, 170.
Setophaga ruticilla, 4, 288.
Setornis criniger, 91.
Sialia mexicana, 286.
—— sialis, 128.
Sitta cæsia, 92.
—— canadensis, 5.
—— chloris, 219.
—— cinnamomeiventris, 92.
—— europæa (v. uralensis), 92.
—— punctata, 220.
—— roseilia, 322.
Somateria mollissima, 85.
Spatula clypeata, 9, 332.
—— rhynchotis, 241.
—— variegata, 241.
Spermestes cucullata, 335.
—— nana, 275.
Spheniscus minor, 243.
Sphenœacus fulvus, 221.
—— punctatus, 220.
Sphyrapicus varius, 3.
Spizaëtus ayresii, 149, 150.
—— bellicosus, 150.
—— coronatus, 150.
—— occipitalis, 150.
—— ornatus, 286.

Spizaëtus spilogaster, 150.
—— zonurus, 150, 284.
Spizella monticola, 6.
—— pallida, 6.
Spiziapteryx, 23.
—— circumcinctus, 25.
Squatarola helvetica, 277.
Steatornis caripensis, 292.
Stercorarius antarcticus, 248.
Sterna alba, 249.
—— albifrons, 249.
—— antarctica, 249.
—— atripes, 250.
—— candida, 249.
—— cinerea, 250.
—— dougalli, 71.
—— frontalis, 249.
—— fuliginosa, 311.
—— gracilis, 249.
—— major, 248.
—— melanauchen, 250.
—— minuta, 307.
—— nereis, 250, 307.
—— parva, 250.
—— poliocerca, 249.
—— rectirostris, 249.
—— stolida, 249.
—— (Sylochelidon) strenuus, 248.
—— striata, 249.
—— tenuirostris, 250.
—— vulgaris, 249.
Sternula antarctica, 249.
Stictocarbo punctatus, 252.
Strepsilas interpres, 255, 277.
Strigops greyii, 230.
—— habroptilus, 103, 230.
Strix affinis, 388.
—— aluco, 180.
—— brachyotus, 27.
—— capensis, 27, 388.
—— castanops, 286.
—— flammea, 269, 336, 387.
—— fulva, 216.
—— javanica, 387.
—— novæ seelandiæ, 216.
—— nyctea, 65, 316.
—— parvissima, 216.
—— passerina, 190.
—— poënsis, 388.
—— scops, 89, 382, 390.
Sturnella magna, 7, 128.
Sturnia blythii, 22.
—— burmannica, 21.
—— malabarica, 22.
—— nemoricola, 22.
Sturnopastor, 22.
Sturnus carunculatus, 227.
—— cineraceus, 327.
—— cinereus, 306.
—— crispicollis, 217.
—— vulgaris, 180.
Sula australis, 250.
—— cyanops, 250.
—— erythrorhyncha, 251.
—— fiber, 250, 289.
—— fusca, 250.
—— piscator, 250.
—— rubripeda, 251.
—— rubripes, 251.
—— serrator, 250.
Suya striata, 304.
Sylochelidon poliocerca, 249.
—— strenua, 249.
Sylvia arundinacea, 384.
—— atricapilla, 384.
—— bifasciata, 56.
—— brevirostris, 67.
—— caligata, 63, 66.
——(Phyllopneuste) eversmanni, 67, 68.
—— fuscata, 67.
—— griseola, 67.
—— icterina, 67, 68.
—— javanica, 386.
—— longipes, 219.
—— orpheus, 70.
—— phragmitis, 384.
—— proregulus, 55.
—— (Phyllopneuste) sibirica, 67.
Sylviella rufescens, 146.
Symmorphus leucopygius, 226.
Symphemia semipalmata, 129, 198, 277.
—— speculifera, 199.
Synallaxis punctata, 220.
Synœcus lodoisiæ, 380.
—— sinensis, 92.
Syrnium aluco, 278.
—— nebulosum, 128.
Syrrhaptes paradoxus, 383.

Tachypetes aquila, 201.
Tadorna rutila, 254.
—— vulpanser, 254.
Tænioptera pyrope, 146.
Tanagra capensis, 225.
—— macularia, 225.
Tanysiptera doris, 349.
—— galatea, 350.
—— isis, 350.
—— sabrina, 350.
Tchitrea cyanomelæna, 30.
Tchitrea perspicillata, 29.
Telephonus erythropterus, 335.
Tetragonops ramphastinus, 2.
Tetrao bonasia, 180, 355.
—— franklini, 8.
—— medius, 289.
—— obscurus, 8.
—— phasianellus, 87.
—— scoticus, 355.
—— tetrix, 179.
—— urogallus, 77, 178, 300.
Tetraogallus caucasicus, 295.
—— himalayensis, 295.
Thalasseus poliocercus, 249
Thalassidroma ——?, 99.
—— grallaria, 245.
—— leachii, 72.
—— marina, 244.
—— melanogaster, 245.
—— nereis, 245.
Thalassoica glacialoides, 246.
Thalassornis leuconotus, 39
Thamnophilus doliatus, 289.
Thinornis frontalis, 234.
—— novæ seelandiæ, 234.
—— rossii, 235.
Thryothorus ——?, 288.
Tiaris jacarini, 288.
Tinnunculus rupicola, 335.
—— sparverius, 128.
Toccus melanoleucus, 157.
Todiramphus vagans, 217.
Todirostrum cinereigulare, 12.
—— olivaceum, 12.
Totanus brevipes, 330.
—— calidris, 254.
—— flavipes, 308.
—— fuscus, 254.
—— glottis, 236, 254.
—— glottoïdes, 236.
—— griseopygius, 191.
—— hypoleucus, 330.
—— melanoleucus, 330.
—— ochropus, 254, 330, 335.
—— pulverulentus, 254, 330.
—— speculiferus, 199.
—— stagnatilis, 254, 390.
Toxostoma rufum, 66.
Trerolæma lechlancheri, 343.
Treron delalandii, 33.

Tringa alpina, 255, 277, 330.
—— bonapartii, 84.
—— canutus, 277.
—— chinensis, 255.
—— crassirostris, 315, 330.
—— maculata, 84, 289.
—— maritima, 277.
—— minuta, 85, 255.
—— ochropus, 296.
—— pectoralis, 277.
—— platyrhyncha, 255.
—— pusilla, 85, 277.
—— schinzii, 85, 277, 297.
—— subarquata, 34, 255, 277.
—— subminuta, 255.
—— temminckii, 71, 255, 330.
—— wilsoni, 85.
Tringites rufescens, 277.
Tringoïdes hypoleuca, 259.
—— macularius, 129, 277, 289, 308.
Trochilus colubris, 128.
Troglodytes borealis, 296, 381.
—— parkmanni, 5.
—— parvulus, 296.
—— vulgaris, 320.
Tropidorhynchus buruensis, 95.
—— fuscicapillus, 351.
Turdus albifrons, 223.
—— aliciæ, 85, 86.
—— amaurotis, 320.
—— australis, 223.
—— cardis, 92, 319.
—— crassirostris, 225.
—— daulias, 261, 319.
—— dissimilis, 92.
—— eunomus, 319.
—— fuliginosus, 224.
—— fuscatus, 319, 323.
Turdus iliacus, 92, 183.
—— illuminus, 182.
—— merula, 296.
—— migratorius, 4, 128.
—— minimus, 183.
—— minutus, 222.
—— musica, 288.
—— nævius, 286.
—— naumanni, 92, 319.
—— ochrotarsus, 223.
—— pelodes, 92.
—— pilaris, 92, 183.
—— poliocephalus, 224.
—— ruficollis, 66.
—— swainsonii, 4, 183.
—— unicolor, 92.
—— varius, 62, 63, 66.
—— vinitinctus, 224.
Turnagra crassirostris, 105, 225.
Turtur chinensis, 261.
—— erythrophrys, 152.
—— gelastes, 261.
—— humilis, 261.
—— meena, 329.
—— rupicola, 181, 329.
Tylas eduardi, 273.
Tyranniscus chrysops, 12.
—— parvus, 12.
Tyrannulus brunneicapillus, 12.
—— chrysops, 12.
—— semiflavus, 12.
Tyrannus carolinensis, 3, 128.
—— dominicensis, 289.

Upupa epops, 327.
Uragus sanguinolentus, 328.
Uria californica, 186.
—— grylle, 85.
—— lomvia, 85, 186.
—— monocerata, 331.
Uria ringvia, 186.
—— troille, 186.
Urile carunculatum, 251.
Urobrachya albo-notata, 337.
Urocissa sinensis, 261.
Utamania torda, 85.

Vanellus ——?, 289.
—— melanopterus, 38.
Vanga curvirostris, 274.
Vidua decora, 338, 340.
—— erythrorhyncha, 340.
Vireo bogotensis, 183.
—— gilvus, 5.
—— olivaceus, 5, 183.
Vultur auricularis, 207.

Xanthocephalus icterocephalus, 7.
Xanthopygia narcissina, 318.
Xanthornis carunculatus, 227.
Xema ——?, 192.
—— sabini, 308.
Xenicus longipes, 218, 285.
—— stokesii, 219.

Yunx pectoralis, 33.
—— torquilla, 260.

Zapornia tabuensis, 239.
Zenaïdura carolinensis, 129
Zonotrichia albicollis, 6.
—— leucophrys, 6, 85.
Zosterops albogularis, 22
—— borbonica, 147.
—— japonica, 318.
—— pallida, 147.
—— strenuus, 222.
—— tenuirostris, 222.
—— tephropleurus, 222.

END OF VOL. IV.

PRINTED BY TAYLOR AND FRANCIS,
RED LION COURT, FLEET STREET.

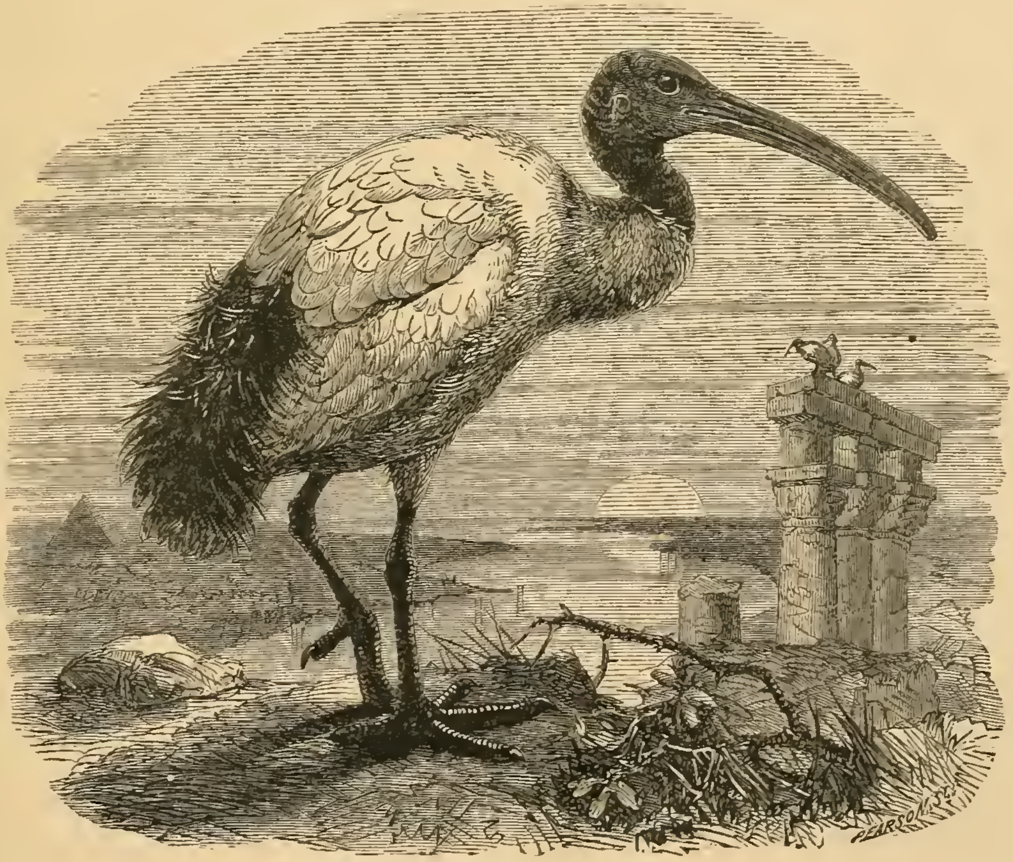
Vol. IV. No. 13. JANUARY 1862. *Price* 6s.

THE IBIS,

A MAGAZINE OF GENERAL ORNITHOLOGY.

EDITED BY

PHILIP LUTLEY SCLATER, M.A., Ph.D., F.R.S.,
FELLOW OF CORPUS CHRISTI COLLEGE, OXFORD,
SECRETARY OF THE ZOOLOGICAL SOCIETY OF LONDON,
ETC., ETC.



LONDON:
N. TRÜBNER AND CO., 60, PATERNOSTER ROW.

Paris.
Fr. Klincksieck, 11, Rue de Lille.

Leipzig.
F. A. Brockhaus.

TAYLOR AND FRANCIS, PRINTERS,] [RED LION COURT, FLEET STREET.

PUBLICATIONS AND IMPORTATIONS

OF TRÜBNER AND CO., 60, PATERNOSTER ROW, LONDON.

AGASSIZ.—CONTRIBUTIONS TO THE NATURAL HISTORY OF THE UNITED STATES OF AMERICA. By LOUIS AGASSIZ. *First Monograph.* In Three Parts.—I. Essay on Classification. II. North American Testudinata. III. Embryology of the Turtle. With Twenty-seven Plates. Vols. I. and II. 4to. Pp. lii. and 644. £7 : 7*s.*

AGASSIZ.—CONTRIBUTIONS TO THE NATURAL HISTORY OF THE UNITED STATES OF AMERICA. By LOUIS AGASSIZ. *Second Monograph.* In Five Parts.—I. Acalephs in general. II. Ctenophoræ. III. Discophoræ. IV. Hydroidæ. V. Homologies of the Radiata. With Forty-six Plates. Vol. III. 4to. Pp. xi., 301 & 26. £3 : 13*s.* 6*d.*

AGASSIZ.—ESSAY ON CLASSIFICATION. By LOUIS AGASSIZ. *Second Edition.* With an Index, and Revised and Enlarged by the Author. In One volume, 8vo. 12*s.*

AUDUBON.—THE BIRDS OF AMERICA, from Drawings made by JOHN JAMES AUDUBON. A new edition of this celebrated work is now in progress of publication, 15 Numbers being already published. Will be completed in 45 Numbers—44 of Plates, 1 of Text; each Number containing 10 full-coloured subjects, on 7 sheets double elephant paper, 27 inches by 40. Delivered to Subscribers at £2 : 2*s.* per Number.

AUDUBON.—THE BIRDS OF AMERICA, from Drawings made in the United States and their Territories, by JOHN JAMES AUDUBON, F.R.SS. L. & E. 7 vols. royal 8vo; with 500 coloured Plates, each 10 inches by 7, and numerous Woodcuts, illustrative of the Anatomy of the Birds. Imp. 8vo. 2204 pages of letter-press. New York, 1840 to 1844. £30.

AUDUBON.—ORNITHOLOGICAL BIOGRAPHY; or, an Account of the Habits of the Birds of the United States of America. By JOHN JAMES AUDUBON, F.R.SS. L. & E. 5 vols. royal 8vo. New York and Edinburgh, 1831 to 1849. £10 : 10*s.*

AUDUBON.—SYNOPSIS OF THE BIRDS OF NORTH AMERICA. By JOHN JAMES AUDUBON, F.R.SS. L. & E., Member of various Scientific Associations in Europe and America. 8vo, pp. 359. Edinburgh, 1839. £1 : 11*s.* 6*d.*

AUDUBON and BACHMAN.—THE QUADRUPEDS OF NORTH AMERICA. By JOHN JAMES AUDUBON and the Rev. JOHN BACHMAN. Published in 30 Parts, of 5 Coloured Plates each (22 inches by 28), forming 3 vols., each volume containing 50 Plates; the Text is in 3 vols. royal 8vo. Philadelphia, 1843 to 1849. £84.

AUDUBON and BACHMAN.—THE QUADRUPEDS OF NORTH AMERICA. By JOHN JAMES AUDUBON, F.R.S. &c. &c., and the Rev. JOHN BACHMAN, D.D. &c. &c. 155 Coloured Plates. 3 vols. royal 8vo, pp. 1078. New York, 1854. £12 : 12*s.*

BAIRD.—MAMMALS OF NORTH AMERICA. The Descriptions of Species based chiefly on the Collections in the Museum of the Smithsonian Institution. By Prof. SPENCER F. BAIRD, Assistant Secretary of the Smithsonian Institution. With 87 Plates of Original Figures, coloured and plain, illustrating the Genera and Species, including details of External Form and Osteology. 4to. Pp. xxxiv. and 764. Philadelphia, 1859. £4 : 4*s.*

BAIRD.—THE BIRDS OF NORTH AMERICA: the Descriptions of Species based chiefly on the Collections in the Museum of the Smithsonian Institution. By SPENCER F. BAIRD, with the cooperation of JOHN CASSIN and GEORGE N. LAWRENCE. 1 vol. of Text, 4to, pp. lvi. and 1006, and 1 vol. of 4to Coloured Plates. Philadelphia, 1860. £6 : 6*s.*

BINNEY.—THE TERRESTRIAL AIR-BREATHING MOLLUSKS OF THE UNITED STATES and the adjacent Territories of North America; described and illustrated by AMOS BINNEY. Edited by AUGUSTUS A. GOULD. 3 vols. 8vo, with numerous Coloured and uncoloured Plates. £10 : 10*s.*

BINNEY.—SUPPLEMENT to the TERRESTRIAL MOLLUSKS AND SHELLS OF THE UNITED STATES. The Plates will comprise over 150 Figures. By W. G. BINNEY. 8vo. Coloured. £1 : 1*s.*

BLYTH and SPEKE.—REPORT ON A ZOOLOGICAL COLLECTION FROM THE SOMÁLI COUNTRY. By EDWARD BLYTH, Curator of the Royal Asiatic Society's Museum, Calcutta. Reprinted from the Twenty-fourth Volume of the Journal of the Royal Asiatic Society of Bengal; with Additions and Corrections by the Collector, Capt. J. H. SPEKE, F.R.G.S. &c. 8vo. 16 pp. 1 Coloured Plate. 2*s.* 6*d.*

BREWER.—NORTH AMERICAN OOLOGY; being an Account of the Geographical Distribution of the Birds of North America during their Breeding Season; with Figures and Descriptions of their Eggs. By T. M. BREWER. 1 vol. 4to, with Coloured Plates. £1 : 11*s.* 6*d.* The same plain, 10*s.*

CASSIN.—THE BIRDS OF CHILI. By JOHN CASSIN. Contained in Volume ii. of Gillis's Astronomical Expedition to the Southern Hemisphere. 2 vols. 4to. 15 Coloured Plates of Birds. £4.

[*Advertisements continued on third page of Wrapper.*

CASSIN.—THE BIRDS OF JAPAN. By JOHN CASSIN. Contained in Volume ii. of Perry's United States' Japan Expedition. 4to. 6 Coloured Plates of Birds. £3 : 3*s*.

CASSIN. — MAMMALOGY AND ORNITHOLOGY OF THE UNITED STATES' EXPLORING EXPEDITION UNDER CAPTAIN WILKES, U.S.N., during 1839–42. By JOHN CASSIN. Text, 1 vol. 4to. Pp. viii. and 466. Atlas in folio, half-bound, containing 53 Coloured Plates, 11 of Mammals and 42 of Birds. £15 : 15*s*.

CASSIN.—ILLUSTRATIONS OF THE BIRDS OF CALIFORNIA, TEXAS, OREGON, BRITISH AND RUSSIAN AMERICA; forming a Supplement to Audubon's "Birds of America." By JOHN CASSIN. 1 vol. royal 8vo, containing 50 Coloured Plates and the explanatory letter-press. Philadelphia, 1856. Half-morocco. £3 : 3*s*.

COMPARATIVE LIST OF THE BIRDS OF SCANDINAVIA AND GREAT BRITAIN. 4to. Pp. 18. 1*s*.

GIRARD.—HERPETOLOGY OF THE UNITED STATES' EXPLORING EXPEDITION UNDER CAPTAIN WILKES, during 1829–46. By CHARLES GIRARD. Text, 1 vol. 4to. Pp. xviii. and 496. Atlas in folio, half-bound, 32 Coloured Plates. £10 : 10*s*.

LE MOINE.—ORNITHOLOGIE DU CANADA. Quelques Groupes d'après la Nomenclature du Smithsonian Institution de Washington. Par J. M. LE MOINE, Avocat. 1re Partie: Les Oiseaux de Proie et les Palmipèdes. 8vo. Pp. 96, sewed. Québec, 1860. 3*s*. 6*d*.

In One Vol. 8vo, price £2 : 2*s*., with 45 Coloured Plates,

A MONOGRAPH OF THE BIRDS

FORMING

THE TANAGRINE GENUS CALLISTE.

By PHILIP LUTLEY SCLATER, M.A., F.R.S.,
Fellow of Corpus Christi College, Oxford.

John Van Voorst, 1, Paternoster Row.

Also, by the same Author,

A SYNOPSIS OF THE FISSIROSTRAL FAMILY

BUCCONIDÆ,

Accompanied by Four Coloured Plates of hitherto unfigured Species.
1 Part, sewn, price 4*s*. 6*d*.

John Van Voorst, 1, Paternoster Row.

Now ready, price Sixpence, by post Sevenpence,

SUGGESTIONS FOR FORMING COLLECTIONS OF BIRDS' EGGS.

By ALFRED NEWTON, M.A., F.L.S.

London: E. Newman, 9, Devonshire Street, Bishopsgate, N.E., and all Booksellers.

MR. D. G. ELLIOT'S

"MONOGRAPH OF THE PITTIDÆ"

is published in parts, containing Five Plates each, at intervals of not less than four months.

There will be in all Six Parts, of Folio size, at Five Dollars each; and no pains or expense will be spared to render the Plates worthy of the beautiful Birds they profess to represent.

The Work will be issued by Subscription, the great expense involved in its production rendering it necessary that the edition should be limited.

Those wishing to Subscribe will please transmit their names to the Author, No. 25 East 14th Street, New York; or to the Publishers, Messrs. D. Appleton & Co., 443 and 445 Broadway, New York. Two parts are now ready.

IN PREPARATION,

In One Vol. 8vo, price £1 : 10*s*., with 20 Coloured Plates,

CATALOGUE OF A COLLECTION OF AMERICAN BIRDS

BELONGING TO

PHILIP LUTLEY SCLATER, M.A., Ph.D., F.R.S. &c.

The figures will be taken from Typical Specimens in the Collection.

London: Trübner and Co., 60, Paternoster Row, by whom Subscribers' names are received.

CONTENTS OF NUMBER XIII.

Page
I. Additional Notes on the American Barbets. By PHILIP LUTLEY SCLATER. (Plate I.) 1
II. On Birds collected and observed in the Interior of British North America. By Capt. BLAKISTON, R.A. (Part II.) .. 3
III. Descriptions of six new species of Birds from the Isthmus of Panama. By GEORGE N. LAWRENCE, C.M.Z.S......... 10
IV. Remarks on the Mode of preparing and keeping living Thrushes and other Birds intended for shipment to Australia. By A. D. BARTLETT 13
V. Notice of some new species of Birds from Upper Burmah. By Surgeon-Major T. C. JERDON.......... 19
VI. Note on *Falco circumcinctus*, a rare Bird of Prey from South America. By PHILIP LUTLEY SCLATER. (Plate II.).... 23
VII. An additional List of Birds received from Natal. By JOHN HENRY GURNEY. (Plate III.).......... 25
VIII. Notice of the occurrence of the Red-necked Goatsucker (*Caprimulgus ruficollis*) in England. By JOHN HANCOCK.... 39
IX. Review of Drs. Blasius' and Baldamus' Continuation of Naumann's 'Vögel Deutschlands' 40
X. An Ornithological Letter on Heligoland. By Prof. Dr. J. H. BLASIUS 58
XI. Recent Ornithological Publications:— 72

1. *English Publications*:—Gould's 'Humming-birds:' Swinhoe's 'North China Campaign:' Collingwood's 'Notes on Singing-birds:' Newman's 'Birds'-nesting:' Lubbock's article on the Kitchen-middens of Denmark: Blyth's Reports on accessions to the Calcutta Museum: Parker's 'Osteology of *Balæniceps rex*.'
2. *French Publications*:—Revue et Magasin de Zoologie.
3. *German Publications*:—v. Heuglin's articles on the Fauna of the Red Sea: v. Pelzeln's new Accipitres: Report of the German Ornithological Society's Meeting at Stuttgardt: Cabanis' Journal für Ornithologie.
4. *American Publications*:—Coues' Monograph of the *Tringeæ* of N. America; and Notes on the Ornithology of Labrador: Elliot's Monograph of the *Pittas*: Wheaton's Catalogue of the Birds of Ohio: The Canadian Naturalist and Geologist.

XII. Letters, Extracts from Correspondence, Notices, &c. 88

Letters from Mr. G. D. Rowley and Mr. H. Stevenson: Extract from a Letter from Dr. Bennett: Announcement of Mr. Jerdon's work on the Natural History of India: Mr. Blyth's Letters and Critical Remarks: The latest news of Mr. Monteiro in Benguela, Mr. Edward Newton in Madagascar, Mr. Wallace in the Indian Archipelago, and Messrs. Salvin and Godman in Guatemala.

⁂ 'The Ibis' is published in parts (price 6*s*. each part: annual subscription £1 : 1*s*.), at the beginning of each quarter, forming an annual volume of about 400 pages, illustrated by not less than twelve coloured plates of birds and eggs. —It is requested that all Communications for the Editor may be addressed, post-paid, to the care of Messrs. Trübner & Co., 60, Paternoster Row, London, E.C. If the annual subscription of £1 : 1*s*. is paid in advance to Messrs. Trübner and Co. direct, the subscriber, if resident in the United Kingdom, will receive the Numbers post-free on the day subsequent to their publication.—Covers for binding Vols. I., II., and III. may be obtained of Messrs. Trübner & Co., at 1*s*. 4*d*. each.

⁂ Part I. of 'The Ibis' being out of print, it is contemplated to reprint it, when a sufficient number of copies have been applied for to repay the expense of so doing. In the meantime *full price* (6*s*.) will be given for copies of this Part, on application to the Publishers.

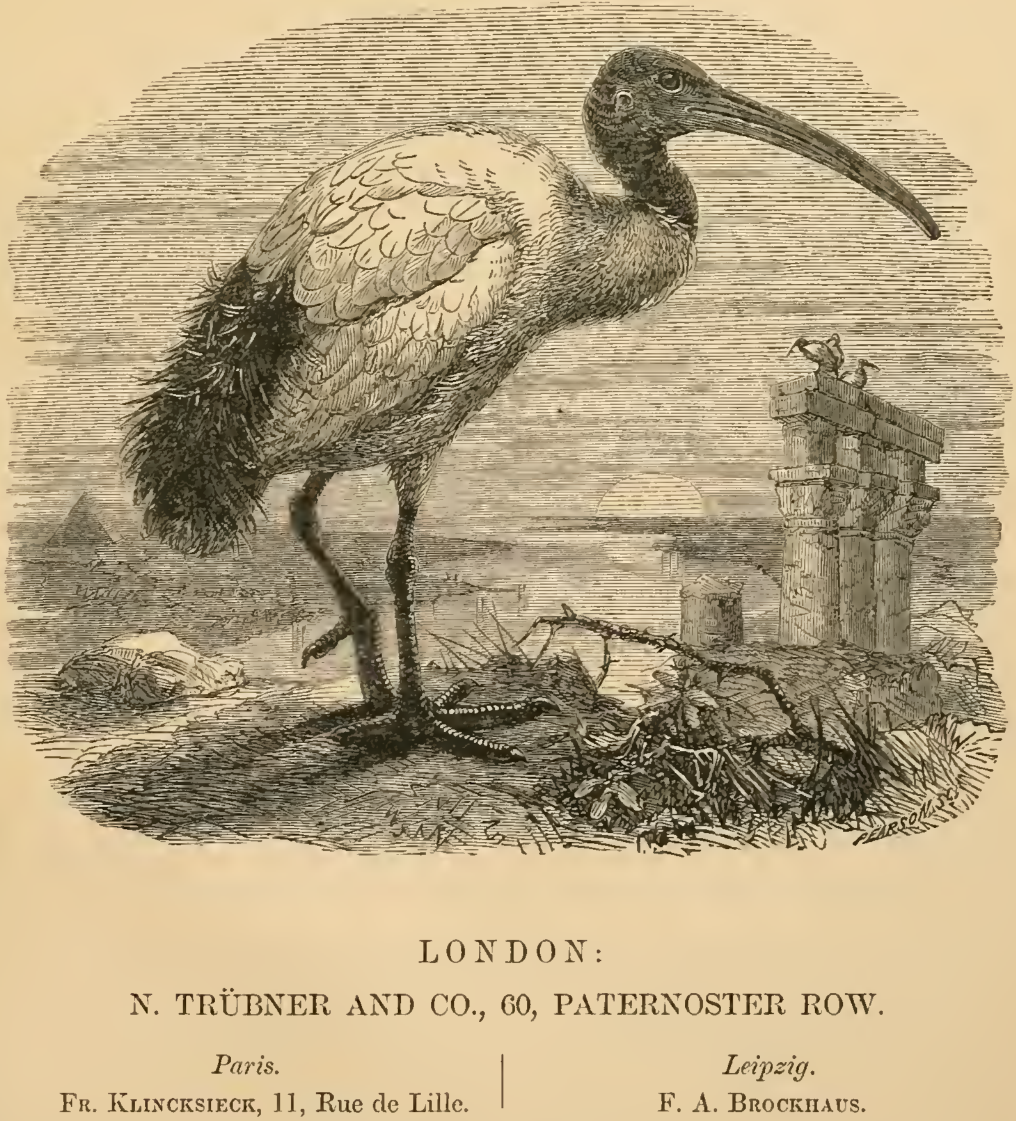
Vol. IV. No. 14. APRIL 1862. *Price* 6s.

THE IBIS,

A MAGAZINE OF GENERAL ORNITHOLOGY.

EDITED BY

PHILIP LUTLEY SCLATER, M.A., Ph.D., F.R.S.,
FELLOW OF CORPUS CHRISTI COLLEGE, OXFORD,
SECRETARY OF THE ZOOLOGICAL SOCIETY OF LONDON,
ETC., ETC.



LONDON:
N. TRÜBNER AND CO., 60, PATERNOSTER ROW.

Paris.
Fr. Klincksieck, 11, Rue de Lille.

Leipzig.
F. A. Brockhaus.

TAYLOR AND FRANCIS, PRINTERS,] [RED LION COURT, FLEET STREET.

PUBLICATIONS AND IMPORTATIONS

OF TRÜBNER AND CO., 60, PATERNOSTER ROW, LONDON.

AGASSIZ.—CONTRIBUTIONS TO THE NATURAL HISTORY OF THE UNITED STATES OF AMERICA. By LOUIS AGASSIZ. *First Monograph.* In Three Parts.—I. Essay on Classification. II. North American Testudinata. III. Embryology of the Turtle. With Twenty-seven Plates. Vols. I. and II. 4to. Pp. lii. and 644. £7 : 7*s.*

AGASSIZ.—CONTRIBUTIONS TO THE NATURAL HISTORY OF THE UNITED STATES OF AMERICA. By LOUIS AGASSIZ. *Second Monograph.* In Five Parts.—I. Acalephs in general. II. Ctenophoræ. III. Discophoræ. IV. Hydroidæ. V. Homologies of the Radiata. With Forty-six Plates. Vol. III. 4to. Pp. xi., 301 & 26. £3 : 13*s.* 6*d.*

AGASSIZ.—ESSAY ON CLASSIFICATION. By LOUIS AGASSIZ. *Second Edition.* With an Index, and Revised and Enlarged by the Author. In One volume, 8vo. 12*s.*

AUDUBON.—THE BIRDS OF AMERICA, from Drawings made by JOHN JAMES AUDUBON. A new edition of this celebrated work is now in progress of publication, 15 Numbers being already published. Will be completed in 45 Numbers—44 of Plates, 1 of Text; each Number containing 10 full-coloured subjects, on 7 sheets double elephant paper, 27 inches by 40. Delivered to Subscribers at £2 : 2*s.* per Number.

AUDUBON.—THE BIRDS OF AMERICA, from Drawings made in the United States and their Territories, by JOHN JAMES AUDUBON, F.R.SS. L. & E. 7 vols. royal 8vo; with 500 coloured Plates, each 10 inches by 7, and numerous Woodcuts, illustrative of the Anatomy of the Birds. Imp. 8vo. 2204 pages of letter-press. New York, 1840 to 1844. £30.

AUDUBON.—ORNITHOLOGICAL BIOGRAPHY; or, an Account of the Habits of the Birds of the United States of America. By JOHN JAMES AUDUBON, F.R.SS. L. & E. 5 vols. royal 8vo. New York and Edinburgh, 1831 to 1849. £10 : 10*s.*

AUDUBON.—SYNOPSIS OF THE BIRDS OF NORTH AMERICA. By JOHN JAMES AUDUBON, F.R.SS. L. & E., Member of various Scientific Associations in Europe and America. 8vo, pp. 359. Edinburgh, 1839. £1 : 11*s.* 6*d.*

BAIRD.—THE BIRDS OF NORTH AMERICA: the Descriptions of Species based chiefly on the Collections in the Museum of the Smithsonian Institution. By SPENCER F. BAIRD, with the cooperation of JOHN CASSIN and GEORGE N. LAWRENCE. 1 vol. of Text, 4to, pp. lvi. and 1006, and 1 vol. of 4to Coloured Plates. Philadelphia, 1860. £6 : 6*s.*

BLYTH and **SPEKE.**—REPORT ON A ZOOLOGICAL COLLECTION FROM THE SOMALI COUNTRY. By EDWARD BLYTH, Curator of the Royal Asiatic Society's Museum, Calcutta. Reprinted from the Twenty-fourth Volume of the Journal of the Royal Asiatic Society of Bengal; with Additions and Corrections by the Collector, Capt. J. H. SPEKE, F.R.G.S. &c. 8vo. 16 pp. 1 Coloured Plate. 2*s.* 6*d.*

BREWER.—NORTH AMERICAN OOLOGY; being an Account of the Geographical Distribution of the Birds of North America during their Breeding Season; with Figures and Descriptions of their Eggs. By T. M. BREWER. 1 vol. 4to, with Coloured Plates. £1 : 11*s.* 6*d.* The same plain, 10*s.*

CASSIN.—THE BIRDS OF CHILI. By JOHN CASSIN. Contained in Volume ii. of Gillis's Astronomical Expedition to the Southern Hemisphere. 2 vols. 4to. 15 Coloured Plates of Birds. £4.

CASSIN.—THE BIRDS OF JAPAN. By JOHN CASSIN. Contained in Volume ii. of Perry's United States' Japan Expedition. 4to. 6 Coloured Plates of Birds. £3 : 3*s.*

CASSIN. — MAMMALOGY AND ORNITHOLOGY OF THE UNITED STATES' EXPLORING EXPEDITION UNDER CAPTAIN WILKES, U.S.N., during 1839–42. By JOHN CASSIN. Text, 1 vol. 4to. Pp. viii. and 466. Atlas in folio, half-bound, containing 53 Coloured Plates—11 of Mammals and 42 of Birds. £15 : 15*s.*

CASSIN.—ILLUSTRATIONS OF THE BIRDS OF CALIFORNIA, TEXAS, OREGON, BRITISH AND RUSSIAN AMERICA; forming a Supplement to Audubon's "Birds of America." By JOHN CASSIN. 1 vol. royal 8vo, containing 50 Coloured Plates and the explanatory letter-press. Philadelphia, 1856. Half-morocco. £3 : 3*s.*

COMPARATIVE LIST OF THE BIRDS OF SCANDINAVIA AND GREAT BRITAIN. 4to. Pp. 18. 1*s.*

GIRARD.—HERPETOLOGY OF THE UNITED STATES' EXPLORING EXPEDITION UNDER CAPTAIN WILKES, during 1829–46. By CHARLES GIRARD. Text, 1 vol. 4to. Pp. xviii. and 496. Atlas in folio, half-bound, 32 Coloured Plates. £10 : 10*s.*

LE MOINE.—ORNITHOLOGIE DU CANADA. Quelques Groupes d'après la Nomenclature du Smithsonian Institution de Washington. Par J. M. LE MOINE, Avocat. 1re Partie: Les Oiseaux de Proie et les Palmipèdes. 8vo. Pp. 96, sewed. Québec, 1860. 3*s.* 6*d.*

[*Advertisements continued on third page of Wrapper.*

ZOOLOGICAL SKETCHES

By JOSEPH WOLF.

MADE FOR

THE ZOOLOGICAL SOCIETY OF LONDON,

FROM ANIMALS IN THEIR VIVARIUM.

EDITED, WITH NOTES,

By PHILIP LUTLEY SCLATER, M.A., PH.D., F.R.S., &c., &c.,
Secretary to the Society.

THE series of Drawings, of which a selection of Fifty is given in the present Volume, was undertaken with the object of preserving a faithful record of the living characters of the most rare and interesting Animals in the Vivarium of the Zoological Society of London.

The present extent of the Society's Collection, and the prospects of increase, derived from the energetic support which it continues to receive from so many sources, afford unequalled means of making these Zoological Portraits both various and instructive. In selecting the subjects, particular regard is paid to those species which exhibit aptitude for acclimatization, either as objects of economic value, or simply as additions to the Exotic Animals which are now so frequently seen in the parks and on the ornamental waters of Europe.

The Drawings have been executed in Water Colours, after most careful study, by Mr. WOLF, who may be fairly said to stand alone in minute knowledge of the habits and forms of Mammalia as well as of Birds; and the Lithographic copies, partly printed in colour and then finished by hand, are in such exact fac-simile as to be scarcely distinguishable from the originals. The Letter-press, prepared by the Editor, embraces all particulars of interest relating to the general history, habits, distribution, and use of the Animals illustrated in the Plates.

The Work may be inspected at the Publishers, Messrs. Henry Graves and Co., 6, Pall Mall; and at the Office of the Zoological Society of London, 11, Hanover Square.

Now ready, price Sixpence, by post Sevenpence,

SUGGESTIONS FOR FORMING COLLECTIONS OF BIRDS' EGGS.

By ALFRED NEWTON, M.A., F.L.S.

London: E. Newman, 9, Devonshire Street, Bishopsgate, N.E., and all Booksellers.

MR. D. G. ELLIOT'S

MONOGRAPH OF THE PITTIDÆ

is published in Parts, containing Five Plates each, at intervals of not less than four months.

There will be in all Six Parts, of Folio size, at Five Dollars each. Those wishing to Subscribe will please transmit their names to the Author, No. 25, East 14th Street, New York; or to the Publishers, Messrs. D. Appleton & Co., 443 & 445, Broadway, New York. Three Parts are now ready.

NEARLY READY,

In One Vol. 8vo, price £1 : 10*s*., with 20 Coloured Plates,

CATALOGUE OF A COLLECTION OF AMERICAN BIRDS

BELONGING TO

PHILIP LUTLEY SCLATER, M.A., Ph.D., F.R.S. &c.

The figures are taken from Typical Specimens in the Collection.

London: Trübner and Co., 60, Paternoster Row, by whom Subscribers' names are received.

Subscription 12*s*. per annum.

THE JOURNAL FÜR ORNITHOLOGIE, a central organ for general Ornithology, edited by Drs. J. CABANIS and E. BALDAMUS, being a continuation of '*Cabanis' Journal für Ornithologie*' and '*Naumannia*,' is published in Parts every year, at intervals of two months. The first Eight Volumes may be now obtained by new Subscribers at the reduced price of £4 : 16*s*.

CASSEL: Theodor Fischer. LONDON: Trübner and Co.

TO EGG-COLLECTORS.

MR. STEVENS will Sell by Auction, on *Wednesday* the 9th of APRIL next, at 1 o'clock precisely, some RARE and WELL-AUTHENTICATED EGGS, sent from Lapland during the last two years by the Collectors instructed and formerly employed by the late Mr. JOHN WOLLEY.

A CATALOGUE WITH DETAILS may be had on application to the Auctioneer, who will execute commissions for Gentlemen who cannot attend the Sale.

CONTENTS OF NUMBER XIV.

Page

XIII. Notes on the Sea-birds observed during a Voyage in the Antarctic Seas. By E. L. Layard 97

XIV. Observations on the Birds of the Western Districts of the Province of Nelson, New Zealand. By Julius Haast .. 100

XV. On the supposed Gular Pouch of the Male Bustard (*Otis tarda*). By Alfred Newton 107

XVI. Five Weeks in the Peninsula of Florida during the Spring of 1862, with Notes on the Birds observed there. By George Cavendish Taylor. (Part I.) 127

XVII. On some new or little-known Birds from the Cape Colony. By Dr. G. Hartlaub 143

XVIII. A Fourth additional List of Birds received from Natal. By John Henry Gurney. (Plates IV. & V.) 149

XIX. Some Remarks on the Genus *Balæniceps*. By Dr. J. Reinhardt.................................... 158

XX. Note on *Pipra deliciosa*. By Philip Lutley Sclater. (Plate VI.) 175

XXI. Recent Ornithological Publications 178

1. *English Publications*:—Ravenstein's 'Russians on the Amoor:' Boner's 'Forest Creatures:' Lubbock on the Lake-habitations of ancient Switzerland: Bree's 'Birds of Europe.'
2. *Russian and Scandinavian Publications*:—Schatiloff's 'Birds of Tauria:' Reinhardt on the *Balæniceps*: Sundevall's 'Svenska Foglarna:' Meves on the Ornithology of Jemtland and the Red-colouring of the Lämmergeyer.
3. *American Publications*:—Proceedings of the Boston Society of Natural History: Bryant on the genus *Catarractes*, and on *Buteo borealis*: Elliot on a new *Pitta*: Suckley on a new American Grouse: Cooper on new Californian Birds: Geoffrey's 'Humming-Birds of Bogota.'

XXII. Letters, Extracts from Correspondence, Notices, &c....... 189

Letters from Messrs. H. Stevenson and G. Krefft: Extracts from Letters from Dr. G. Bennett, Mr. Blyth, and Herr A. v. Pelzeln: Remarks on *Podiceps auritus* breeding in Egypt: Latest intelligence of Messrs. Salvin and Godman, of Mr. E. Newton, and of Mr. F. Plant.

⁂ 'The Ibis' is published in Parts (price 6*s.* each Part: annual subscription £1 : 1*s.*), at the beginning of each quarter, forming an annual volume of about 400 pages, illustrated by not less than twelve coloured plates of birds and eggs. Communications for the Editor may be addressed, post-paid, to the care of Messrs. Trübner & Co., 60, Paternoster Row, London, E.C. If the annual subscription of £1 : 1*s.* is paid in advance to Messrs. Trübner and Co. direct, the subscriber, if resident in the United Kingdom, will receive the Numbers post-free on the day subsequent to their publication.—Covers for binding Vols. I., II., and III. may be obtained of Messrs. Trübner & Co., at 1*s.* 4*d.* each.

⁂ Part I. of 'The Ibis' being out of print, it is contemplated to reprint it, when a sufficient number of copies have been applied for to repay the expense of so doing. In the meantime *full price* (6*s.*) will be given for copies of this Part, on application to the Publishers.

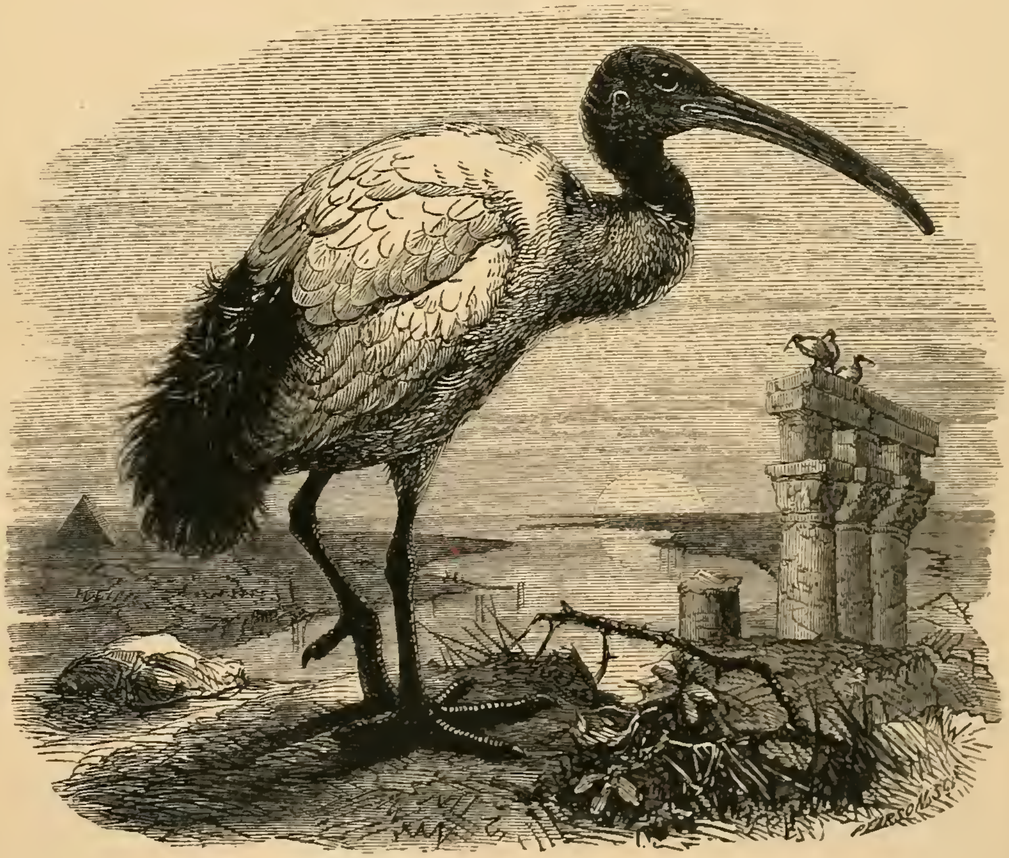
Vol. IV. No. 16. OCTOBER 1862. *Price* 6s.

THE IBIS,

A MAGAZINE OF GENERAL ORNITHOLOGY.

EDITED BY

PHILIP LUTLEY SCLATER, M.A., Ph.D., F.R.S.,
FELLOW OF CORPUS CHRISTI COLLEGE, OXFORD,
SECRETARY OF THE ZOOLOGICAL SOCIETY OF LONDON,
ETC., ETC.



LONDON:
N. TRÜBNER AND CO., 60, PATERNOSTER ROW.

Paris.
Fr. Klincksieck, 11, Rue de Lille.

Leipzig.
F. A. Brockhaus.

TAYLOR AND FRANCIS, PRINTERS,] [RED LION COURT, FLEET STREET.

PUBLICATIONS AND IMPORTATIONS

OF TRÜBNER AND CO., 60, PATERNOSTER ROW, LONDON.

AGASSIZ.—CONTRIBUTIONS TO THE NATURAL HISTORY OF THE UNITED STATES OF AMERICA. By Louis Agassiz. *First Monograph.* In Three Parts.—I. Essay on Classification. II. North American Testudinata. III. Embryology of the Turtle. With Twenty-seven Plates. Vols. I. and II. 4to. Pp. lii. and 644. £7 : 7*s.*

AGASSIZ.—CONTRIBUTIONS TO THE NATURAL HISTORY OF THE UNITED STATES OF AMERICA. By Louis Agassiz. *Second Monograph.* In Five Parts. —I. Acalephs in general. II. Ctenophoræ. III. Discophoræ. IV. Hydroidæ. V. Homologies of the Radiata. With Forty-six Plates. Vol. III. 4to. Pp. xi., 301 & 26. £3 : 13*s.* 6*d.*

AGASSIZ.—ESSAY ON CLASSIFICATION. By Louis Agassiz. *Second Edition.* With an Index, and Revised and Enlarged by the Author. In One volume, 8vo. 12*s.*

AUDUBON.—THE BIRDS OF AMERICA, from Drawings made by John James Audubon. A new edition of this celebrated work is now in progress of publication, 15 Numbers being already published. Will be completed in 45 Numbers—44 of Plates, 1 of Text; each Number containing 10 full-coloured subjects, on 7 sheets double elephant paper, 27 inches by 40. Delivered to Subscribers at £2 : 2*s.* per Number.

AUDUBON.—THE BIRDS OF AMERICA, from Drawings made in the United States and their Territories, by John James Audubon, F.R.SS. L. & E. 7 vols. royal 8vo; with 500 coloured Plates, each 10 inches by 7, and numerous Woodcuts, illustrative of the Anatomy of the Birds. Imp. 8vo. 2204 pages of letter-press. New York, 1840 to 1844. £30.

AUDUBON.—ORNITHOLOGICAL BIOGRAPHY; or, an Account of the Habits of the Birds of the United States of America. By John James Audubon, F.R.SS. L. & E. 5 vols. royal 8vo. New York and Edinburgh, 1831 to 1849. £10 : 10*s.*

AUDUBON.—SYNOPSIS of the BIRDS of NORTH AMERICA. By John James Audubon, F.R.SS. L. & E., Member of various Scientific Associations in Europe and America. 8vo, pp. 359. Edinburgh, 1839. £1 : 11*s.* 6*d.*

BAIRD.—THE BIRDS OF NORTH AMERICA: the Descriptions of Species based chiefly on the Collections in the Museum of the Smithsonian Institution. By Spencer F. Baird, with the cooperation of John Cassin and George N. Lawrence. 1 vol. of Text, 4to, pp. lvi. and 1006, and 1 vol. of 4to Coloured Plates. Philadelphia, 1860. £6 : 6*s.*

BLYTH and **SPEKE.**—REPORT ON A ZOOLOGICAL COLLECTION FROM THE SOMÁLI COUNTRY. By Edward Blyth, Curator of the Royal Asiatic Society's Museum, Calcutta. Reprinted from the Twenty-fourth Volume of the Journal of the Royal Asiatic Society of Bengal; with Additions and Corrections by the Collector, Capt. J. H. Speke, F.R.G.S. &c. 8vo. 16 pp. 1 Coloured Plate. 2*s.* 6*d.*

BREWER.—NORTH AMERICAN OOLOGY; being an Account of the Geographical Distribution of the Birds of North America during their Breeding Season; with Figures and Descriptions of their Eggs. By T. M. Brewer. 1 vol. 4to, with Coloured Plates. £1 : 11*s.* 6*d.* The same plain, 10*s.*

CASSIN.—THE BIRDS OF CHILI. By John Cassin. Contained in Volume ii. of Gillis's Astronomical Expedition to the Southern Hemisphere. 2 vols. 4to. 15 Coloured Plates of Birds. £4.

CASSIN.—THE BIRDS OF JAPAN. By John Cassin. Contained in Volume ii. of Perry's United States' Japan Expedition. 4to. 6 Coloured Plates of Birds. £3 : 3*s.*

CASSIN. — MAMMALOGY AND ORNITHOLOGY OF THE UNITED STATES' EXPLORING EXPEDITION UNDER CAPTAIN WILKES, U.S.N., during 1839–42. By John Cassin. Text, 1 vol. 4to. Pp. viii. and 466. Atlas in folio, half-bound, containing 53 Coloured Plates—11 of Mammals and 42 of Birds. £15 : 15*s.*

CASSIN.—ILLUSTRATIONS OF THE BIRDS OF CALIFORNIA, TEXAS, OREGON, BRITISH AND RUSSIAN AMERICA; forming a Supplement to Audubon's "Birds of America." By John Cassin. 1 vol. royal 8vo, containing 50 Coloured Plates and the explanatory letter-press. Philadelphia, 1856. Half-morocco. £3 : 3*s.*

COMPARATIVE LIST OF THE BIRDS OF SCANDINAVIA AND GREAT BRITAIN. 4to. Pp. 18. 1*s.*

GIRARD.—HERPETOLOGY OF THE UNITED STATES' EXPLORING EXPEDITION UNDER CAPTAIN WILKES, during 1829-46. By Charles Girard. Text, 1 vol. 4to. Pp. xviii. and 496. Atlas in folio, half-bound, 32 Coloured Plates. £10 : 10*s.*

LE MOINE.—ORNITHOLOGIE DU CANADA. Quelques Groupes d'après la Nomenclature du Smithsonian Institution de Washington. Par J. M. Le Moine, Avocat. 1^{re} Partie: Les Oiseaux de Proie et les Palmipèdes. 8vo. Pp. 96, sewed. Québec, 1860. 3*s.* 6*d.*

[*Advertisements continued on third page of Wrapper.*

Now ready, in one volume, half morocco, gilt edges, lettered, price £12 : 12*s.*

ZOOLOGICAL SKETCHES

By JOSEPH WOLF.

MADE FOR

THE ZOOLOGICAL SOCIETY OF LONDON,

FROM ANIMALS IN THEIR VIVARIUM.

EDITED, WITH NOTES,

By PHILIP LUTLEY SCLATER, M.A., Ph.D., F.R.S., &c., &c.,
Secretary to the Society.

The series of Drawings, of which a selection of Fifty is given in the present Volume, was undertaken with the object of preserving a faithful record of the living characters of the most rare and interesting Animals in the Vivarium of the Zoological Society of London.

The present extent of the Society's Collection, and the prospects of increase, derived from the energetic support which it continues to receive from so many sources, afford unequalled means of making these Zoological Portraits both various and instructive. In selecting the subjects, particular regard is paid to those species which exhibit aptitude for acclimatization, either as objects of economic value, or simply as additions to the Exotic Animals which are now so frequently seen in the parks and on the ornamental waters of Europe.

The Drawings have been executed in Water Colours, after most careful study, by Mr. Wolf, who may be fairly said to stand alone in minute knowledge of the habits and forms of Mammalia as well as of Birds; and the Lithographic copies, partly printed in colour and then finished by hand, are in such exact fac-simile as to be scarcely distinguishable from the originals. The Letter-press, prepared by the Editor, embraces all particulars of interest relating to the general history, habits, distribution, and use of the Animals illustrated in the Plates.

The Work may be inspected at the Publishers, Messrs. Henry Graves and Co., 6, Pall Mall; and at the Office of the Zoological Society of London, 11, Hanover Square.

Now ready, price Sixpence, by post Sevenpence,

SUGGESTIONS FOR FORMING COLLECTIONS OF BIRDS' EGGS.

By ALFRED NEWTON, M.A., F.L.S.

London: E. Newman, 9, Devonshire Street, Bishopsgate, N.E., and all Booksellers.

MR. D. G. ELLIOT'S

MONOGRAPH OF THE PITTIDÆ

is published in Parts, containing Five Plates each, at intervals of not less than four months.

There will be in all Six Parts, of Folio size, at Five Dollars each. Those wishing to Subscribe will please transmit their names to the Author, No. 25, East 14th Street, New York; or to the Publishers, Messrs. D. Appleton & Co., 443 & 445, Broadway, New York. Four Parts are now ready.

NOW READY,

In One Vol. 8vo, cloth boards, price £1 : 10*s.*, with 20 Coloured Plates (uniform with 'The Ibis'),

CATALOGUE OF A COLLECTION OF AMERICAN BIRDS

BELONGING TO

PHILIP LUTLEY SCLATER, M.A., Ph.D., F.R.S., &c.,
Editor of 'The Ibis.'

This Catalogue gives the names, the principal synonyms, and the localities of a collection of American Birds, of the Orders *Passeres*, *Fissirostres*, and *Scansores*. The collection contains about 4100 specimens, belonging to 2170 different species. The Series in many of the families which have been the subjects of Monographs in the Zoological Society's Proceedings and in other periodicals is very complete, and probably the most nearly perfect in existence.

The figures, which are intended to illustrate some of the principal novelties belonging to the collection, have been taken from the typical specimens by Mr. J. Jennens. Only 100 copies of the perfect work have been prepared.

London: Trübner and Co., 60, Paternoster Row.

Subscription 12*s.* per annum.

The JOURNAL FÜR ORNITHOLOGIE, a central organ for general Ornithology, edited by Drs. J. Cabanis and E. Baldamus, being a continuation of '*Cabanis' Journal für Ornithologie*' and '*Naumannia,*' is published in Parts every year, at intervals of two months. The first Eight Volumes may be now obtained by new Subscribers at the reduced price of

CONTENTS OF NUMBER XVI.

Page

XXXIV. On the Ornithology of Northern Japan. By Captain Blakiston. (Plate X.) 309

XXXV. Notes on Birds collected in Angola in 1861. By Joachim J. Monteiro. (Plate XI.) 333

XXXVI. Description d'une nouvelle espèce de Pigeon du genre *Leucotreron*. Par MM. Jules Verreaux et O. Des Murs. (Plate XII.) 342

XXXVII. Sur l'*Anthus* des Canaries reconnu comme espèce nouvelle et nommé *Anthus berthelotii*. Par Charles Bolle (de Berlin). 343

XXXVIII. On some New Birds from the Northern Moluccas. By A. R. Wallace 348

XXXIX. On the Extinction in Europe of the Common Francolin (*Francolinus vulgaris*, Steph.). By Lord Lilford . . 352

XL. Notes on the Birds of Egypt. By S. Stafford Allen. 357

XLI. Remarks on the Lesser Buzzard of South Africa and its Congeners. By J. H. Gurney, M.P., F.Z.S. 361

XLII. Letter from Mr. Swinhoe. (Plate XIII.) 363

XLIII. Contribution to the Breeding History of the Nutcracker (*Nucifraga caryocatactes*). By E. Schütt 365

XLIV. Review of the recently published Memoir of Bewick. . . . 368

XLV. Recent Ornithological Publications :—

1. *English Publications*: — Morris's 'British Birds:' Johns's 'British Birds in their Haunts:' Bree's 'Birds of Europe:' Sclater's 'Catalogue of American Birds:' Mason's 'Burmah.' 378
2. *French Publications*:—Revue et Magasin de Zoologie 380
3. *German Publications*:—Journal für Ornithologie: Bädeker's 'European Eggs.' 381
4. *Scandinavian and Russian Publications*:—Kröyer's 'Tidsskrift:' Radde's 'Travels in Eastern Asia.' 382
5. *American Publications*:—Elliot's 'Pittas' 383

XLVI. Letters, Extracts from Correspondence, Notices, &c. :—

Letters from Freiherr v. Heuglin and Mr. Rowley: Extracts of letters from Mr. Blyth and Mr. Gätke: Mr. Crewe's notes on the Dotterel in Bucks: Death of M. Mouhot: Mr. Gould's new work on 'British Birds:' Major Tytler's appointment to the Andamans. 383

Index 393

Title-page, Preface, Contents, &c. of Vol. IV.

⁂ 'The Ibis' is published in Parts (price 6*s*. each Part: annual subscription £1 : 1*s*.), at the beginning of each quarter, forming an annual volume of about 400 pages, illustrated by not less than twelve coloured plates of birds and eggs. Communications for the Editor may be addressed to 11, Hanover Square, London, W., or to the care of Messrs. Trübner & Co., 60, Paternoster Row, London, E.C. If the annual subscription of £1 : 1*s*. is paid in advance to Messrs. Trübner and Co. direct, the subscriber, if resident in the United Kingdom, will receive the Numbers post-free on the day subsequent to their publication.—Covers for binding Vols. I., II., III., & IV. may be obtained of Messrs. Trübner & Co., at 1*s*. 4*d*. each.

⁂ Parts I. and V. of 'The Ibis' being out of print, it is contemplated to reprint them, when a sufficient number of copies have been applied for to repay the expense of so doing. In the mean time *full price* (6*s*.) will be given for copies of these Parts, on application to the Publishers.

MAR 17 1953
AUG 16 1961

APR 69
N. MANCHESTER,
INDIANA

AMNH LIBRARY
100109428